

JPL D-5099

STRATEGIC MANAGEMENT OF RESEARCH AND DEVELOPMENT: A LITERATURE SEARCH

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January 15, 1988

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PREFACE

This literature search is an advance product of the Post Conference Sub-Committee of the National Conference on Strategic Management of Research and Development. The conference, to be held in Crystal City, Arlington, Virginia, in June 1988, is sponsored by the AIAA, AIA, IEEE, and EIA in cooperation with DoD and NASA. The members of the Post Conference Sub-Committee (as of this date) are listed on the following page.

The references listed were drawn from government and commercial databases and include citations from periodicals, conference proceedings, government contractor reports, and books. While this is not an exhaustive search, it is believed to contain a major portion of what is available on the subject. It will give the reader an idea of the scope of materials available on strategic planning and management of R&D and is intended to stimulate further interest and dialogue on this area of emerging significance.

NATIONAL CONFERENCE ON STRATEGIC MANAGEMENT OF R&D (STRATRAD)

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SECTION I

HOW TO USE THIS DOCUMENT

SECTION I

HOW TO USE THIS DOCUMENT

In the course of gathering the references contained here, it was observed that strategic planning and strategic management are frequently cited separately in periodicals and contractor reports. For this reason, references from such sources are listed separately in Sections II and III, respectively. In the case of books, distinction between the two topics is less common; therefore, all book references are grouped together in Section IV. In each section, the citations are listed alphabetically by senior or corporate author. Some citations may appear to be only indirectly related to the section topic; these were included because of their potential usefulness to one exploring the general area of interest.

Each abstract has been reviewed as to its described contents and potential applicability to the topics expected to be addressed at the 1988 National Conference. However, not all of the complete documents have been screened in their entirety by the reviewers, so the reader is advised to make a judgment as to what material may in fact be most useful.

Section V provides the names, addresses, and telephone numbers of organizations from which the listed material may be requested. The documents are not available from members of the Post Conference Sub-Committee or the document compiler.

Comments on this literature search and additional references are welcome and should be referred to Carol K. Sterkin or Leo R. Lunine at the Jet Propulsion Laboratory.

NASA acronyms and abbreviations used in the document are defined as follows:

ABA	Abstract author
ABS	Abstract
AUTH	Author
CIO	Country of intellectual origin
CORP	Corporation
MAJS	Major subject heading
MINS	Minor subject heading
SAP	Sales agency and pricing
UTTL	Unclassified title

SECTION II

REPORTS, JOURNAL ARTICLES, AND CONFERENCE PAPERS
ON
STRATEGIC PLANNING OF RESEARCH AND DEVELOPMENT

STRATEGIC PLANNING FOR RESEARCH AND DEVELOPMENT.
BEMELMANS, T.
LONG RANGE PLANNING, VOL.12, NO.2, APRIL 1979, P.
83-44,BIBLIOG. 9

The importance of strategic planning for research and development (R&D) should be considered due to limited resources and long development periods. The advantages of R&D planning include high turnover and profit opportunities because the firm first to market innovative products gains a technical lead over its competitors. Being the first to market innovative products also means high costs of research and great risks of failures. Various methods are available for determining an R&D budget. R&D planning must also be integrated in the total organizational plan. The evaluation of research projects can be achieved by conducting: 1. a general investigation which includes a technological forecast, 2. a complete project evaluation, and 3. an allocation decision. Projects can be evaluated using scoring models and indices provided by Olsen and Pacifico. The net present value method is a better method to use in determining the value of research projects. Research people can be motivated by using the concept of parallel research. By considering the number of specific and explicit research strategy possibilities, top management can develop their own R&D strategies and continue to contribute to their firm's competitive strength. Figures. Tables. Appendix. References.

DESCRIPTORS: Strategic; Planning; R&D; Projects; Project evaluation; Research

87N25290# ISSUE 19 CATEGORY 1 RPT#:
MBB-UR-E-925/86 ETN-87-99957 86/10/02 16 PAGES In
GERMAN UNCLASSIFIED DOCUMENT DCAF E070087
UTTL: The German aeronautics and space industry. Chances for
technical-scientific young talent
AUTH: A/BERGE, KLAUS
CORP: Messerschmitt-Boelkow-Blohm G.m.b.H., Ottobrunn (West
Germany). CSS: (Unternehmensbereichsleitung
Raumfahrt.)
SAP: Avail: Issuing Activity
CIO: GERMANY, FEDERAL REPUBLIC OF Presented at the 35th
Hermann-Oberth Gesellschaft (HOG) e.V.
Raumfahrtkongress, Garmisch-Partenkirchen, West
Germany, 2-4 Oct. 1986
MAJS: /*AEROSPACE INDUSTRY/*ECONOMIC DEVELOPMENT/*MANAGEMENT
PLANNING/*PERSONNEL/*RESEARCH MANAGEMENT/*WEST GERMANY
MINS: / COMPUTER AIDED DESIGN/ COMPUTER ASSISTED INSTRUCTION
/ ECONOMIC IMPACT/ QUALIFICATIONS/ TECHNOLOGY
UTILIZATION
ABA: ESA
ABS: The direction and management methods and the emerging
technical tasks in the space industry are discussed.
The role of strategic planning, leading to a different
approach with respect to management practices and the
equipment of offices and laboratories using computer
aided communication, simulation, and computation, is
emphasized.

87N26680# ISSUE 20 CATEGORY 82 87/04/00 6 PAGES
UNCLASSIFIED DOCUMENT

UTTL: Strategic planning process at the National Technical
Information Service
AUTH: A/CAPONIO, JOSEPH F.; B/BUDOWSKY, DONALD S.
CORP: National Technical Information Service, Springfield,
Va.
SAP: Avail: NTIS HC A06/MF A01
In Advisory Group for Aerospace Research and Planning
and Designing Effective Defence and Related
Information Services 6 p (SEE N87-26675 20-82)
CIO: UNITED STATES
MAJS: /*INFORMATION MANAGEMENT/*INFORMATION SYSTEMS/*
PLANNING/*RESEARCH AND DEVELOPMENT
MINS: / ECONOMICS/ INFORMATION/ PRODUCTIVITY
ABA: Author
ABS: External trends such as the growth of the information
society, the increasing economic value of information,
the growth of research and development, funding, and
advances in automation have dictated the need for
information services to have a strong commitment to
strategic planning. These trends are discussed and the
strategic planning process at the National Technical
Information Service (NTIS) is outlined.

77A38218 ISSUE 17 PAGE 2975 CATEGORY 83 CNT#:
NSF ENG-74-22564 76/00/00 8 PAGES UNCLASSIFIED
DOCUMENT

UTTL: Energy R&D modeling for budgetary decisions
AUTH: A/CHEN, K.; B/LATHROP, J.; C/KIRKWOOD, C.;
D/POLLOCK, S. PAA: D/(Michigan, University, Ann
Arbor, Mich.)
CIO: UNITED STATES
In: Modeling and simulation. Volume 7 - Proceedings of
the Seventh Annual Pittsburgh Conference, Pittsburgh,
Pa., April 26, 27, 1976. Part 2. (A77-38176 17-66)
Pittsburgh, Pa., Instrument Society of America, 1976,
p. 955-962.
MAJS: /*BUDGETING/*DECISION MAKING/*ENERGY POLICY/*
MATHEMATICAL MODELS/*RESEARCH AND DEVELOPMENT/*
RESEARCH MANAGEMENT
MINS: / COAL LIQUEFACTION/ ENGINEERING MANAGEMENT
ABA: (Author)
ABS: A top-down approach is taken to apply multi-objective
decision analysis to the strategic budgetary decisions
in energy RD&D (research, development and
demonstration) planning. A model is developed for the
explicit and quantitative treatment of uncertainties
and project interrelationships. The model is applied
to an example budgetary allocation between two coal
liquefaction programs, H-Coal and Synthoil. The
example demonstrates the potential appropriateness of
decision analysis in energy RD&D strategic planning.

THE ROLE OF INDUSTRIAL MARKETING RESEARCH IN STRATEGIC PLANNING.

CLARK, W.A.

AMERICAN MARKETING ASSOCIATION PROCEEDINGS, SERIES 45, 1980, P. 188-191., PROCEEDINGS.

MARKETING RESEARCH AND STRATEGIC PLANNING ARE DEFINED. MARKET RESEARCH HAS SEVERAL IMPORTANT ROLES TO PLAY IN STRATEGIC PLANNING. STRATEGIC PLANNING IS THE MEANS FOR DETERMINING THE BEST ALLOCATION OF LIMITED RESOURCES AMONG BUSINESSES.

DESCRIPTORS: MARKETING RESEARCH; LONG RANGE PLANNING AND OBJECTIVES; RESOURCE ALLOCATION; PLANNING; GOALS AND OBJECTIVES; O587; O230; O641; O251; O251

Linking R&D and Strategic Planning

Collier, Don

Jrnl of Business Strategy v2n2 PP: 72-81 Fall 1981

JRNL CODE: JST

DOC TYPE: Journal Paper LANGUAGE: English LENGTH: 10 Pages

AVAILABILITY: ABI/INFORM

The key ingredients of sound strategic management include the operational manager's involvement in planning and implementing strategies, good communication, and resource allocation and functional plans made in accordance with the strategies. At Borg-Warner, strategies at the business unit level were controlled by the corporate office, primarily through resource allocation. A 4-point program was implemented to correct this situation by revising technological priorities in the company. The new strategy was based on: 1. emphasizing margin and other operating ratios, 2. allocating resources to the most profitable business units, 3. acquiring technologies upon which to base future growth, and 4. acquiring businesses that could improve Borg-Warner's business mix. When a corporation sets strategies to obtain future goals, a proper allocation of resources is important. A key resource is expenditures for research and development (R & D). Because the payback on R & D investments is not immediate and is sometimes obscured, a system for monitoring R & D results should be developed. Charts.

DESCRIPTORS: Strategic; Planning; Strategic management; Corporate planning; Case studies; Borg Warner-Chicago; Organizational plans; Technology; Development

530443 AD-A030 804/9

Defense R and D Issues: Their Importance in Long-Range Strategic Planning

(Final rept.)

Ford, John J. ; Gray, Colin S. ; Jacobs, Jerome E. ; Lackman, Jr., William F. ; Perry, Willard W.

Stanford Research Inst Arlington Va Strategic Studies Center
* Corp. Source Codes: 407407

* Report No.: SSC-TN-2358-2

* Jun 75 241p

See also Rept. no. SSC-TN-2358-3 dated Dec 74, AD-A030 805 and Rept. no. SSC-TN-2358-4 dated Dec 74, AD-A030 761.

NTIS Prices: PC A11/MF A01 Journal Announcement: GRAI7626

Contract No.: DAHC15-73-C-0183; ARPA Order-2289; SRI-2358

This report reviews the key issues associated with defense technology to provide a basis for the examination of R/D policy and the formulation of program plans. The issue papers examine the concepts of technological superiority, balance, and surprise; discuss technology in negotiations and international cooperation in R/D; and assesses selected R/D aspects of military strategy and planning. (Author)

Descriptors: *National defense; *Military planning;
*Military research; *Military strategy; *Research management;
*Department of Defense; *National security; Military doctrine
Policies; Methodology; Operations research

Identifiers: *Research and development; NTISDODXA

82N70983 CATEGORY 81 RPT#: CE-BIB-286 81/00/00

11 PAGES UNCLASSIFIED DOCUMENT DCAF F004655

UTTL: Planning scenarios: Concept and methodology

AUTH: A/HARTLEY, K. J. PAT: A/comp.

CORP: Central Electricity Generating Board, London
(England). CSS: (Technical Information Unit.)

AVAIL.NTIS

CIO: UNITED KINGDOM

MAJS: /*BIBLIOGRAPHIES/*MANAGEMENT PLANNING/*PREDICTION
ANALYSIS TECHNIQUES

MINS: / INDUSTRIAL MANAGEMENT/ MATHEMATICAL MODELS/ RISK/
STRATEGY

87N12252# ISSUE 3 PAGE 393 CATEGORY 61 RPT#:

AD-A168692 AFWAL-TR-86-4018 CNT#: F33615-83-C-5077

86/01/00 212 PAGES UNCLASSIFIED DOCUMENT

UTTL: A research planning assessment for applications of
artificial intelligence in manufacturing TLSP:
Interim Report, 1 Feb. - 31 Aug. 1985

AUTH: A/HENGHOLD, W. M.; B/TRISCARI, T.

CORP: Universal Technology Corp., Dayton, Ohio.

SAP: Avail: NTIS HC A10/MF A01

CIO: UNITED STATES

MAJS: /*AERONAUTICAL ENGINEERING/*ARTIFICIAL INTELLIGENCE/*
DEMOGRAPHY/*MANUFACTURING/*OPERATIONS RESEARCH/*
PRODUCTION ENGINEERING/*RESEARCH MANAGEMENT/*SOFTWARE
ENGINEERING

MINS: / ARMED FORCES (UNITED STATES)/ GOALS/ INDUSTRIES/
MANAGEMENT PLANNING/ PERFORMANCE TESTS/ STRATEGY

ABA: Author (GRA)

ABS: The Air Force Wright Aeronautical Laboratories
Materials Laboratory is charged with developing a
research program for applications of Artificial
Intelligence as it relates to manufacturing. As a part
of program development, advisory input was sought from
experts from industry, academia, and government. A
structured methodology was employed which featured a
top-down approach leading from concept level
articulation, through application area goals and
objectives, to project level detail. This report
documents the effort in terms of providing
methodological background, application area goals and
objectives, and results obtained from project
generation and assessment.

**RESEARCH ON STRATEGIC PLANNING: A SURVEY OF PAST STUDIES
AND SUGGESTIONS FOR FUTURE EFFORTS.**

HOFFER, C.W.

JOURNAL OF ECONOMICS AND BUSINESS, VOL.28, NO.3,
SPRING-SUMMER 1976, P. 261-286. BIBLIOG. 109

THE STUDIES COVERING STRATEGIC PLANNING ARE PUT INTO SIX CATEGORIES. (1). NATURE OF ORGANIZATIONAL STRATEGIES (2). COST AND BENEFITS OF STRATEGIC PLANNING (3). STRATEGIC PLANNING INFORMATION AND ANALYSIS (4). APPROACHES TO ORGANIZING THE STRATEGIC PLANNING FUNCTION (5). POLITICAL AND SOCIAL SYSTEMS' ASPECTS OF THE STRATEGIC PLANNING PROCESS (6). CONTENT OF EFFECTIVE ORGANIZATIONAL STRATEGIES.

DESCRIPTORS: ACQUISITION; CORPORATIONS; SURVEY; EFFICIENCY DECISION MAKING; COST BENEFIT; FINANCIAL RATIOS; INVESTMENT ANALYSIS; GOALS AND OBJECTIVES; MANAGEMENT; LONG RANGE PLANNING AND OBJECTIVES; MANAGEMENT FUNCTIONS; MANAGEMENT POLICY; MANAGEMENT STRATEGY; PLANNING; RESOURCE ALLOCATION; RESEARCH AND DEVELOPMENT; PERFORMANCE APPRAISAL; MERGER; POLITICS; SOCIAL ISSUES.

76A30117 ISSUE 13 PAGE 2033 CATEGORY 66

76/00/00 31 PAGES UNCLASSIFIED DOCUMENT

UTTL: Energy system modeling and forecasting

AUTH: A/HOFFMAN, K. C.; B/WOOD, D. O. PAA: A/(Brookhaven National Laboratory, Upton, N.Y.); B/(MIT, Cambridge, Mass.)

CIO: UNITED STATES

In: Annual review of energy. Volume 1. (A76-30101 13-44) Palo Alto, Calif., Annual Reviews, Inc., 1976, p. 423-453.

MAJS: /*DYNAMIC MODELS/*ENERGY METHODS/*ENERGY TECHNOLOGY/* SYSTEMS ANALYSIS/*TECHNOLOGICAL FORECASTING

MINS: / ECONOMIC ANALYSIS/ ENERGY CONVERSION/ ENERGY POLICY/ ENERGY SOURCES/ GAME THEORY/ MANAGEMENT PLANNING/ PRODUCTION ENGINEERING/ RESEARCH AND DEVELOPMENT/ SYSTEMS MANAGEMENT

ABA: S.D.

ABS: This review provides an introduction to the scope, applications, methodology, and content of energy system models, particularly those developed and used in the United States. A classification of models is presented, and representative models are discussed. Three levels of planning are considered: policy planning, strategic planning, and tactical or operational planning. Energy system models provide support at all three planning levels, for regulatory agencies; for industrial planning, management, and evaluation of R&D programs; and for national energy policy and strategy planning. The objectives of these planning activities and the requirements imposed on the models are discussed. The trend of current research is toward developing models that integrate engineering/process models with more behavioral models to form energy/economic systems that treat the demand for and supply of energy types simultaneously with those for other factors of production. This approach should result in a substantial improvement in both the forecasting and the descriptive power of the resulting models.

R & D Strategic Planning in Turbulent Environments

Kimmerly, William C.

Managerial Planning v31n5 PP: 8-13 Mar/Apr 1983 CODEN:
MNPLBS ISSN: 0025-1941 JRNL CODE: MPL
DOC TYPE: Journal Paper LANGUAGE: English LENGTH: 6 Pages
AVAILABILITY: ABI/INFORM

Planning strategically for changes in an unpredictable environment, rather than passively adapting to changes, will result in a more effective organization. An organization should develop a strategy, even if it is not implemented. Otherwise, random external stimuli will form substitute, often unproductive, goals to fill the void. If an organization plans effectively under conditions of absolute turbulence, it can in turn plan effectively under a variety of conditions. Research-intensive organizations operating in turbulent environments can improve the effectiveness of their strategic planning process by: 1. improving their information processing capability, 2. controlling research programs, and 3. achieving compatibility in the goals of managers and researchers.

References.

DESCRIPTORS: Strategic; Planning; R&D; Institutions;
Organizational behavior; Organization theory; Goals;
Scientists

Strategic Planning for ACRL (Association of College and Research Libraries): Final Report of the ACRL Strategy Planning Task Force

Klingberg, S.

Association of Coll. and Research Libraries, Chicago, IL.

Corp. Source Codes: 061851000

1 Jul 86 155p

Available from ERIC Document Reproduction Service (Computer Microfilm International Corporation), 3900 Wheeler Ave., Alexandria, VA 22304-5110.

Languages: English

NTIS Prices: Not available NTIS Journal Announcement:
GRAI8715

Country of Publication: United States

The 5-year plan of the Association of College and Research Libraries (ACRL) is presented, and the four goals of the plan are summarized: (1) to contribute to the total professional development of academic and research librarians; (2) to enhance the capability of academic and research libraries to serve the needs of users; (3) to promote and speak for the interests of academic and research librarianship; and (4) to promote study, research, and publication relevant to academic librarianship. In addition, the following aspects of the plan, planning process, and implementation are discussed: working principles underlying the plan; the planning model; the planning process; executive summary of goals, objectives and their sources; mission statement; strategic management directions; and implementation (overview, timeline, recommended changes in financial policies, development of the annual operating plan, and dissemination). A Member Needs Report, Strategic Factors Report, Strategic Audit Report, Resources Report, and 'A Proposed Planning Process for the Association of College and Research Libraries' are appended. (KM).

Descriptors: *Academic libraries; Higher education; Library associations; *Library planning; Library services; *Long range planning; Mission statements; Needs assessment; *Objectives; Professional development; Public relations; Recruitment; *Research libraries; Research opportunities; User needs(Information)

74A35105# ISSUE 17 PAGE 2526 CATEGORY 34
74/05/00 10 PAGES In RUSSIAN UNCLASSIFIED
DOCUMENT

UTTL: Organizational systems and methods of strategic planning of scientific research and development /Survey/

AUTH: A/LARICHEV, O. I.

CIO: UNKNOWN

Avtomatika i Telemekhanika, May 1974, p. 133-142. In Russian.

MAJS: /*PROGRAM TREND LINE ANALYSIS/*PROJECT PLANNING/*RESEARCH AND DEVELOPMENT/*RESEARCH MANAGEMENT/*VALUE ENGINEERING

MINS: / BUDGETING/ COST ANALYSIS/ DECISION MAKING/ FORECASTING/ MANAGEMENT METHODS/ STRATEGY

ABA: P.T.H.

ABS: The present state and main trends in the evolution of organizational systems and methods of strategic planning of research and development are discussed, and a survey of literature in this field is presented. Modern planning methods are given two main classifications: (1) methods of project evaluation, and (2) methods for determining means of attaining the desired goals.

774916 AD-A084 107/2

AFWL Technical Objective Number 1 Nuclear Weapons Technology. AFWL Technical Objective Number 3 Advanced Weapons Technology. Fiscal Year 1981

(Final rept.)

Lewis, Dan E.

Air Force Weapons Lab., Kirtland AFB, NM.

Corp. Source Codes: 000905000; 013150

Report No.: AFWL-TR-79-191

Mar 80 24p

Supersedes Rept. no. AFWL-TR-78-206, AD-A062 142.

Languages: English

NTIS Prices: PC A02/MF A01 Journal Announcement: GRAI8018

Country of Publication: United States

Contract No.: 9991; 00

TPD-1. Present DOD/USAF strategic planning is based on the ability of strategic weapon systems to survive and operate through an attack employing nuclear weapons. The energy from the detonation of a nuclear device takes many forms (EMP, X ray, gamma ray, thermal, blast, etc.) and is of sufficient amplitude and energy to seriously degrade or negate the systems under attack. As the design and interdependence of advanced systems become more intricate and the potential attacking force achieves greater numbers and sophistication, survival requirements become greater for those systems. Definition of the environment must be determined and improved

as the postulated threat is revised or refined. Analysis and simulation techniques must be devised to be used in testing and assessing the survivability/vulnerability of Air Force systems. Every US Air Force aircraft and missile system with a nuclear capability must be conceived, developed, built, and operated in accordance with nuclear safety standards and have characteristics that are compatible with design, safety, and operational requirements of the Air Force. TPO-3. Advanced nuclear and nonconventional weapon research and technology development must continue to identify those technologies that will provide improved tactical and strategic offensive and defensive warfare capabilities. This TPO is established to provide a vehicle for exploitation of new technology opportunities as they arise either as spinoffs from ongoing technology efforts or through independent research and development efforts. (Author)

Descriptors: *Research management; *Air Force research; Air Force planning; *Strategic weapons; Ordnance laboratories; Nuclear weapons; Tactical weapons; Advanced weapons; Research facilities; Planning programming budgeting; Air Force budgets Defense planning

Identifiers: TOD(Technical Objective Document); NTISDODXA

87A35446 ISSUE 15 CATEGORY 81 87/02/00 7 PAGES
UNCLASSIFIED DOCUMENT

UTTL: An extension of the analytic hierarchy process for industrial R&D project selection and resource allocation

AUTH: A/LIBERATORE, MATTHEW J. PAA: A/(Villanova University, PA)

CIO: UNITED STATES
IEEE Transactions on Engineering Management (ISSN 0018-9391), vol. EM-34, Feb. 1987, p. 12-18. Research supported by Villanova University.

MAJS: /*HIERARCHIES/*PROJECT PLANNING/*RESEARCH AND DEVELOPMENT/*RESEARCH MANAGEMENT/*RESOURCE ALLOCATION

MINS: / DECISION MAKING/ LITERATURE/ SELECTION

ABA: Author

ABS: The research and development project selection decision is concerned with the allocation of resources to a set of proposals for scientific and engineering activities. The project selection and resource allocation process can be viewed as a multiple-criteria decision-making problem, within the context of the long-range and strategic planning process of the firm. The purpose of this paper is to explore the applicability of an extension of the Analytic Hierarchy Process (AHP) for priority setting and resource allocation in the industrial R&D environment. In this paper, an AHP modeling framework for the R&D project selection decision is developed, and is linked to a spreadsheet model to assist in the ranking of a large number of project alternatives. Next, cost-benefit analysis and integer programming are used to assist in the resource allocation decision. The paper concludes with an evaluation of the suitability of this approach as an expert support system, and directions for future research and testing.

A Sectoral Approach to Strategic Planning for R&D

Linn, Robert A.

Research Mgmt v26n1 PP: 33-40 Jan/Feb 1983 CODEN: RESMA3

ISSN: 0034-5334 JRNL CODE: RMG

DOC TYPE: Journal Paper LANGUAGE: English LENGTH: 8 Pages

AVAILABILITY: ABI/INFORM

Decisions concerning the focuses and procedures to use in a technological firm's research and development (R&D) effort can be made within the framework of an environmental or sectoral approach that takes into account: 1. the R&D department's own internal environment, 2. the intracompany environment, and 3. the external environment in which the company resides. The 4 major external influences on R&D are: 1. stability and the need for change, 2. the prior art, 3. the effect of market share, and 4. current business and political factors. Due to the present uncertainty of the political and business climates, firms cannot define their goals by some measurable, quantifiable factor. Instead, they must define them according to qualitative objectives which determine how the firm is to reach its goals by allocation of human and other resources. One possible strategic option to consider is planning according to market share. The internal environment of a firm's R&D department - its structure, its role within the firm, and the economic strengths and weaknesses of the firm itself - will powerfully influence a firm's R&D strategy and effectiveness. Tables. Charts. References.

85N28870# ISSUE 17 PAGE 3049 CATEGORY 81 RPT#:

REPT-84-02 84/00/00 53 PAGES UNCLASSIFIED

DOCUMENT DCAF E003953

UTTL: Multicriteria decision analysis as an aid to strategic planning of energy research and development

AUTH: A/LOOTSMA, F. A.; B/MEISNER, J.; C/SHELLEMANS, F.
PAA: B/(Shell Research BV, Amsterdam); C/(Energy Research Council, Hague)

CORP: Technische Hogeschool, Delft (Netherlands). CSS: (Dept. of Mathematics and Informatics.) AVAIL.NTIS

SAP: HC A04/MF A01

CIO: NETHERLANDS

MAJS: /*DECISION MAKING/*ENERGY TECHNOLOGY/*MANAGEMENT
METHODS/*RESEARCH AND DEVELOPMENT

MINS: / BUDGETING/ DECISIONS/ ECONOMIC FACTORS/ PROJECT
MANAGEMENT

ABA: Author (ESA)

ABS: The use of multicriteria decision analysis as an aid for an advisory council to select areas of interest for government-financed Energy R&D subject to a budget constraint is described. A way of comparing the anticipated impact of energy R&D in different technological areas based on the opinions of the council members given a number of judgment criteria is outlined. Maximizing the overall impact of an R&D program for a given level of expenditure is explained. It is shown how the decision model can be used as a discussion model highlighting the points of agreement and disagreement among council members.

Multi-Criteria Decision Analysis as an Aid to the Strategic Planning of Energy R&D

Lootsma, F. A.; Meisner, J.; Schellemans, F.

European Jrn1 of Operational Research (Netherlands) v25n2

PP: 216-234 May 1986 CODEN: EJORDT ISSN: 0377-2217

JRNL CODE: EJO

DOC TYPE: Journal Paper LANGUAGE: English LENGTH: 19 Pages

AVAILABILITY: ABI/INFORM

An attempt is made to demonstrate the use of multicriteria decision analysis to assist an advisory council in selecting areas of interest for government-financed energy research and development (R&D), subject to a budget constraint. The benefits of energy R&D may be hard to value in monetary terms. A different way of comparing the anticipated effects of energy R&D in various technological areas based on the opinions of the council members given a number of judgment criteria is described, followed by a maximization of the overall impact of an energy R&D program for a given level of expenditure. Since the council members have different backgrounds, their opinions may differ and so may the solutions of the optimization problem. The decision model can be employed as a discussion model highlighting the points of agreement and disagreement among them, so that they can focus on the latter in order to reach a vindicated compromise. Tables. Charts. Graphs. Equations. References. Appendix.

DESCRIPTORS: Public finance; Energy; R&D; Multiple; Criteria; Decision making; Strategic planning; Decision analysis; Decision making models; Preferences; Social impact; Mathematical models

85A33649 ISSUE 15 PAGE 2262 CATEGORY 81

85/05/00 7 PAGES UNCLASSIFIED DOCUMENT

UTTL: Strategic planning for investment in R&D using decision analysis and mathematical programming

AUTH: A/MADEY, G. R.; B/DEAN, B. V. PAA: A/(Goodyear Aerospace Corp., Akron, OH); B/(Case Western Reserve University, Cleveland, OH)

CIO: UNITED STATES

IEEE Transactions on Engineering Management (ISSN 0018-9391), vol. EM-32, May 1985, p. 84-90.

MAJS: /*BUDGETING/*DECISION MAKING/*MATHEMATICAL PROGRAMMING
; /*PROJECT PLANNING/*RESEARCH AND DEVELOPMENT/*RESEARCH
MANAGEMENT

MINS: / GOAL THEORY/ MANAGEMENT PLANNING/ PROJECT MANAGEMENT
/ RESEARCH PROJECTS

ABA: Author

ABS: This paper investigates the strategic planning and investments associated with research and development (R&D) project selection and budgeting within a division of an aerospace firm. A model is described that is used in an R&D planning environment where considerable risks result from technological, economic, governmental, and market factors. Several forms of a multi-attribute utility (MAU) objective function are maximized using mathematical programming techniques. Approximate methods, including compromise programming and goal programming, are evaluated and yield results that are reasonably close to and require less computation than more exact methods. Solutions are used to recommend to management an R&D portfolio that maximizes expected utility for the division.

Using management system balance sheets. (research conducted to assess the effectiveness of strategic planning, management by objectives, and human resource accounting)

Migliore, R. Henry; Bratschun, Neal

Planning Review (a publication of the Planning Forum) v15 March-April, 1987, p40(4)

SPECIAL FEATURES: illustration; table; forms

CAPTIONS: Management system balance sheet results (control vs. test organizations).; Sample questions (from the seven-organization survey).; Broadcast company: management system balance sheet results.; Pipeline service company (management system balance sheet results).

The management system balance sheet (MSBS) method of surveying employees' opinions of their managers' effectiveness was used to assess strategic planning, management by objectives, and human resource accounting techniques at seven organizations. The MSBS method was developed by earlier research that proved its ability to accurately measure management effectiveness. The ten objectives of the MSBS research effort involving the administration of 500 questionnaires and the results indicated by the survey are discussed. The survey indicated that strategic planning and management by objectives programs improved employees' impressions of management effectiveness over time.

DESCRIPTORS: Management by objectives--research; Strategic planning--research; Human capital--research; Management science--methodology; Management--surveys; Comparative management--evaluation

87A27611# ISSUE 11 PAGE 1577 CATEGORY 14 RPT#:
AIAA PAPER 87-0673 87/00/00 9 PAGES UNCLASSIFIED
DOCUMENT

UTTL: Implementing strategic goals through operational planning and control

AUTH: A/MONAGHAN, DIANNE K.; B/BALDRACHI, JOHN A. PAA:
B/(McDonnell Douglas Astronautics Co., Cocoa Beach, FL)

CIO: UNITED STATES

IN: Space Logistics Symposium, 1st, Huntsville, AL, Mar. 24-26, 1987, Technical Papers (A87-27603 11-14). New York, American Institute of Aeronautics and Astronautics, 1987, p. 45-53.

MAJS: /*FLIGHT MANAGEMENT SYSTEMS/*GROUND BASED CONTROL/*
MANAGEMENT PLANNING

MINS: / LOGISTICS MANAGEMENT/ MANAGEMENT METHODS

ABA: M.S.K.

ABS: Techniques for developing operational plans for systematically meeting strategic goals while providing guidelines for organizational activities are described. Organizational planning is decomposed into establishment of strategic goals by top management, the definition of milestones and action plans, adjustments to the master plan and issuance of a schedule, and configuration of progress monitoring mechanisms. The roles of top, middle, department and line management personnel are explored, noting the necessity for clear lines of authority, responsibility and communication. Although subsequent external and operational events may necessitate changes in master plan, it is purpose of operational planning to minimize the occurrence and effects of downstream modifications and setbacks.

87A16105# ISSUE 4 PAGE 451 CATEGORY 12 RPT#:
IAF PAPER 86-453 86/10/00 6 PAGES UNCLASSIFIED
DOCUMENT

UTTL: Modeling and simulation of large scale space systems
Strategic planning implications

AUTH: A/NOZETTE, S.; B/DAVIS, H.; C/BILBY, C. PAA:
B/(Large Scale Programs Institute, Austin, TX);
C/(Texas, University, Austin)

CIO: UNITED STATES

IAF, International Astronautical Congress, 37th,
Innsbruck, Austria, Oct. 4-11, 1986. 6 p.

MAJS: /*COMPUTERIZED SIMULATION/*LARGE SPACE STRUCTURES/*
MATHEMATICAL MODELS/*PROJECT PLANNING/*SPACECRAFT
DESIGN/*STRATEGY

MINS: / DECISION MAKING/ LUNAR BASES/ PROTOTYPES

86N22092# ISSUE 12 PAGE 1991 CATEGORY 51 RPT#:
PB86-109386 JTECH-TAR-8404 NSF/PRA-85016 CNT#:
TA-83-SAC-02254 NSF PRA-85-13755 85/06/00 171 PAGES
UNCLASSIFIED DOCUMENT

UTTL: Japanese Technology Evaluation Program (JTECH):
Biotechnology Panel TLSP: Final Report

AUTH: A/OXENDER, D.; B/COONEY, C.; C/JACKSON, D.; D/SATO,
G.; E/WICKNER, R.

CORP: Science Applications International Corp., La Jolla,
Calif. AVAIL. NTIS

SAP: HC A08/MF A01

CIO: UNITED STATES Sponsored in part by Department of
Commerce, Washington, D.C.

MAJS: /*BIOTECHNOLOGY/*JAPAN/*PROJECT PLANNING/*TECHNOLOGY
ASSESSMENT

MINS: / MARKETING/ RESEARCH AND DEVELOPMENT/ SCHEDULES

ABA: GRA

ABS: Japanese research and development in several of the
main areas of biotechnology, including biochemical
process technology, biosensors, cell culture
technology, protein engineering, and recombinant DNA
technology are assessed. Japan's strategic planning in
biotechnology is based on a 10 to 15 year time scale,
whereas most similar planning and resource commitment
in the United States is based on a 3 to 5 year time
scale. This difference in time scale is thought to be
partially responsible for Japan's apparently more
technology-driven than market-driven resource
commitment. It is noted that much of the
commercialization of biotechnology in Japan is being
carried out by large established companies and that
Japan has a well-established coordination of the
development of biotechnology by industry,
universities, and government groups.

Strategic Planning and Research and Development - Can We Integrate Them?

Petroni, G.

Long Range Planning, Vol.16, No.1, Feb. 1983, P. 15-25,
Bibliog. 7, Journal.

To integrate corporate structures means to effectively link
the organization's goals, its rules and those who occupy the

roles. Despite this, there is a very difficult relationship between strategy and research. The main tension is the precarious balance between scientific and cultural interests of the researcher and the company need for scientific and technical exploration. Time will solve the problem. There is also a problem between innovative research and improvement research. In theory, the solution is to separate the research areas with three methods, make a director responsible for research with no staff available on the main board, use a research committee or form business teams. Whatever the system, the values of the researcher must be recognized. There is a difference between invention and innovation and recognition of creativity falloff. The most common organizational model where the goal is attainment of results, the matrix, is presented.

DESCRIPTORS: Strategic Planning; Research and Development; Tables; Charts; Integrated Approach; Matrix

Measures of Small Firm Effectiveness for Strategic Planning Research

Robinson, Richard B., Jr.

Jrnl of Small Business Mgmt v21n2 PP: 22-29 Apr 1983

CODEN: JSBMAU ISSN: 0047-2778 JRNL CODE: JSB

DOC TYPE: Journal Paper LANGUAGE: English LENGTH: 8 Pages

AVAILABILITY: ABI/INFORM

In the past, organizational effectiveness research has concentrated on large business. The definition and measurement of organizational effectiveness needs to be adapted to small business. The 4 components of organizational effectiveness in small firms are: 1. community involvement, 2. customer satisfaction, 3. owner return, and 4. employee satisfaction. The most popular measures for determining organizational effectiveness are return on sales and growth of sales. If future research could generate a large sample size, variations in the usefulness of profitability, sales, or other measures might be found between different firms. Future research could use a multiple regression or factor analysis approach. These approaches could help determine if return on sales and sales growth are significant measures of organizational effectiveness. Graph. Tables. References.

DESCRIPTORS: Small business; Organizational; Effectiveness Strategic management; Research; Measures; Studies; Statistical analysis; Strategic; Planning

Research Thrusts in Small Firm Strategic Planning

Robinson, Richard B., Jr.; Pearce, John A., II

Academy of Mgmt Review v9n1 PP: 128-137 Jan 1984 ISSN: 0363-7425 JRNL CODE: AMR

DOC TYPE: Journal Paper LANGUAGE: English LENGTH: 10 Pages

AVAILABILITY: ABI/INFORM

Small and growing firms face issues of strategic importance to their future survival and growth; yet, the state of knowledge relevant to the strategic management of these firms is inadequate. From a historical perspective, strategic planning research in small firms has emerged sporadically rather than in clear research tracks. An organized view is

presented of small firm strategic planning research; more than 50 planning-related studies from small firm settings are reviewed. The research that has dealt with strategic planning can be categorized into 4 major thrusts: 1. strategic planning practices, 2. value of strategic planning, 3. specific features of the planning "process," and 4. the "content" of strategies. The key issues and findings associated with each thrust are presented, along with possible future research guidelines. Tables. References.

DESCRIPTORS: Small business; Strategic; Planning; Research

362500 AD-769 513/3

Futurism and Long-Range Strategic Planning: Applications to the Navy Strategic Study

(Research rept.)

Ryan, Paul J.

Naval Academy Annapolis Md

Corp. Source Codes: 245600

Report No.: USNA-TSPR-49

21 May 73 106p

Report on A Trident Scholar Project.

NTIS Prices: PC A06/MF A01 Journal Announcement: GRAI7401

The study examines the theoretical basis for long-range strategic planning, and evaluates the Navy's activity in this context through analysis of the Navy Strategic Study (NSS), its principal long-range planning document. The Navy Strategic Study, scheduled for annual publication by OP-605C, has not been reissued since March 1970. After identifying certain problem areas the author makes five point recommendations for the reorganization of the NSS, and further he recommends to change the annual planning to a more realistic three year update/rewrite cycle. The importance of military preparedness makes it imperative that the Navy place greater emphasis on long-range planning. This can be accomplished through a revitalized NSS. (Author)

Descriptors: *Naval operations; *Management planning and control ; Predictions; Problem solving; Planning; Problem solving; Research management; Methodology; Scientific organizations

Identifiers: Trident scholar project; NTISN

Section Headings: 15G (Military Sciences--Operations, Strategy, and Tactics); 74G (Military Sciences--Military Operations, Strategy, and Tactics)

84N22851# ISSUE 13 PAGE 1979 CATEGORY 81 RPT#:
AD-POO2890 CNT#: N00014-80-C-0542 83/12/00 8
PAGES UNCLASSIFIED DOCUMENT

UTTL: A knowledge based interactive procedure for planning and decision support under uncertainty and parameter imprecision

AUTH: A/SAGE, A. P.; B/WHITE, C. C., III

CORP: Virginia Univ., Charlottesville. CSS: (Dept. of Engineering Science and Systems.) AVAIL. NTIS

SAP: HC A14/MF A01

In MIT Proc. of the 6th MIT/DNR Workshop on C3.
(Command, Control, and Commun.) Systems p 109-116
(SEE N84-22835 13-32)

CIO: UNITED STATES

MAJS: /*DECISION MAKING/*INFORMATION THEORY/*PLANNING
MINS: / ACCURACY/ ALGORITHMS/ ALTERNATIVES/ INDEPENDENT
VARIABLES/ INFORMATION SYSTEMS/ KNOWLEDGE/ PROCEDURES/
RANKING/ SELECTION/ STRATEGY/ TRADEOFFS
ABA: Author (GRA)
ABS: This article summarizes key features of an interactive
planning and decision support process for multiple
criteria alternative selection situations.
Probabilities, utility scores for the lowest level
attributes, and attribute tradeoff weights, i.e., the
parameters, can be imprecisely described by set
inclusion. Within a specified structural model of the
decision situation, the process allows the
decisionmaker to iteratively select the mix of
parameter value precision and alternative ranking
specificity. By selecting this mix, the decisionmaker
is able to direct and alternative selection process in
an interactive manner, using alternative selection
strategies based on behaviorally meaningful dominance
search strategies. Emphasis is placed on the
motivation of the research and the behavioral
relevance of the support process.

82N16014# ISSUE 6 PAGE 858 CATEGORY 85 RPT#:
DE81-029325 BNL-29857 CNT#: DE-AC02-76CH-00016
81/00/00 10 PAGES UNCLASSIFIED DOCUMENT
UTTL: Application of an LP model to strategic planning of
multinational cooperative RD and D programs
AUTH: A/SAILOR, V. L.
CORP: Brookhaven National Lab., Upton, N. Y. AVAIL.NTIS
SAP: HC A02/MF A01
CIO: UNITED STATES
MAJS: /*COMPUTER PROGRAMS/*ENERGY TECHNOLOGY/*LINEAR
PROGRAMMING/*PROJECT PLANNING
MINS: / INTERNATIONAL COOPERATION/ MATHEMATICAL MODELS/
RESEARCH AND DEVELOPMENT
ABA: DOE
ABS: An analytical study was initiated to serve as a basis
for defining a cooperative strategy for RD and D among
International Energy Agency member nations. A flexible
energy system model, MARKAL, was developed as the
primary tool for the analysis. The flexibility of
MARKAL is demonstrated by the fact that the diverse
energy systems of sixteen countries and the aggregated
European Economic Community have been modeled
successfully. MARKAL is a multi-period linear
programming model which describes the energy flows,
costs, and resource consumption of national energy
systems over an extended period of time (1980 to
2020). Various policy options and assumptions about
future world situations create a range of scenarios
which control the MARKAL solutions. Such options and
such postulated conditions, translated into
operational indicators to drive the MARKAL model and
constrain its solutions, are described.

86A32915# ISSUE 14 PAGE 1993 CATEGORY 14
85/00/00 15 PAGES UNCLASSIFIED DOCUMENT

UTTL: Pilot design and strategic planning of advanced lunar base/lunar city concept
AUTH: A/SAVOIE, M. PAA: A/(Savoie Industries, Inc., Belle Rose; Nicholls State University, Thibodaux, LA)
CIO: UNITED STATES
IN: Man's permanent presence in space; Proceedings of the Third Annual Aerospace Technology Symposium, New Orleans, LA, November 7, 8, 1985 (A86-32904 14-12). New Orleans, LA, American Institute of Aeronautics and Astronautics, 1985, 15 p.
MAJS: /*CLOSED ECOLOGICAL SYSTEMS/*LUNAR BASES/*SPACE COLONIES
MINS: / INTERNATIONAL COOPERATION/ LUNAR CRATERS/ MISSION PLANNING/ NASA SPACE PROGRAMS/ PROTOTYPES/ RESEARCH AND DEVELOPMENT/ SITE SELECTION/ SYSTEMS ENGINEERING
ABA: C.D.
ABS: Ideas for a permanent lunar base in the Kopff Crater are presented. The initial base could be started by mining into the side of the crater and building domes there, thus avoiding deadly radiation. The colony could expand outward into the crater by covering the outer domes with lunar soil. The planning and development of such a base is discussed, emphasizing the role of private enterprise. The possibility that the Soviets or the Europeans intend to build a lunar base is addressed.

73A21699 ISSUE 8 PAGE 1026 CATEGORY 34
73/00/00 18 PAGES UNCLASSIFIED DOCUMENT

UTTL: Strategic planning. III - Objectives and program options.
UNOC: Objective trees as technological forecasting technique in structuring program options for selected strategies, considering R and D, marketing and other functional business programs
AUTH: A/SWAGER, W. L. PAA: A/(Battelle Columbus Laboratories, Columbus, Ohio)
CIO: UNITED STATES
Technological Forecasting and Social Change, vol. 4, no. 3, 1973, p. 283-300.
MAJS: /*MANAGEMENT PLANNING/*OPTIONS/*STRATEGY/* TECHNOLOGICAL FORECASTING/*TREES (MATHEMATICS)
MINS: / BUDGETING/ DECISION MAKING/ MARKETING/ PRIORITIES/ PROGRAMMING (SCHEDULING)/ PROJECT PLANNING/ RESEARCH AND DEVELOPMENT/ RESOURCE ALLOCATION

Linking Long-Range Research to Strategic Planning

Weil, Edward D.; Cangemi, Robert R.

Research Mgmt v26n3 PP: 32-39 May/Jun 1983 CODEN: RESMA3

ISSN: 0034-5334 JRNL CODE: RMG

DOC TYPE: Journal Paper LANGUAGE: English LENGTH: 9 Pages
AVAILABILITY: ABI/INFORM

Executives dissatisfied with the current productivity and innovativeness levels of industrial research must acknowledge the presence of the problem of inadequate linkage of corporate strategy to research. A study was conducted to review the extent to which corporate long-range research is influenced and affected by the long-range strategic planning of a company. Questions addressed included: 1. Are the horizons of corporate planning and research matched or mismatched? 2. What problems hinder the relating of long-range research to corporate objectives? A sampling of survey findings includes: 1. The majority of respondents (82%) indicated that their firms have formal long-range planning with the average time span being 6.5 years. 2. Both operating and corporate management are perceived as having an aversion to high-risk research and development (R&D). 3. Many respondents affirmed a serious information gap with regard to corporate goals and strategies between management and R&D personnel. 4. Perceived linkage problems arise from such causes as a mismatch in time horizons of business planners and researchers, and ineffective downward communication of corporate goals and strategies. Tables. References.

Long-Range Strategic Planning in Japanese R and D
Yamauchi, Ichizo
Futures (UK) v15n5 PP: 328-341 Oct 1983 CODEN: FUTUBD
ISSN: 0016-3287 JRNL CODE: FUR
DOC TYPE: Journal Paper LANGUAGE: English LENGTH: 14 Pages
AVAILABILITY: ABI/INFORM

Prior to the 1970s, Japanese industries were not involved in strategic corporate planning and the formulation of long-range research and development (R&D) strategies. Instead, industrial planning was undertaken on the basis of fulfilling national goals for industrialization, promoted both by the Japanese government and industrialized nations following World War II. Japanese corporations were thus able to import technological information freely and implement new technologies without the need to assess their risks. An historical analysis of Japanese R&D planning reveals that differences in national industrial policy and corporate strategy are primarily determined by the timing of a nation's stages of industrialization. Rather than cultural factors, Japan's position as a follower in the path of advanced nations' industrialization has influenced the nature of Japanese R&D planning. Now that national industrialization goals have been met, Japan must become a leader in technological innovation. Graphs.

DESCRIPTORS: Japan; R&D; Long term planning; Strategic; Planning; Technology transfer; Industrial development; History

803270 AD-A089 098/8

The Office of Science and Technology Policy: Adaptation to a President's Operating Style May Conflict with Congressionally Mandated Assignments

General Accounting Office, Washington, DC. Program Analysis Div.

Corp. Source Codes: 010682014; 411538

Report No.: GAO/PAD-80-79

3 Sep 80 64p

Report by the Comptroller General.

Languages: English

NTIS Prices: PC A04/MF A01 Journal Announcement: GRAI8101

Country of Publication: United States

In this report, we develop a profile of OSTP, describe OSTP's compliance with the legislated mandate of Title III in Public Law 94-282 for a study on Federal organization and management of science and technology policy, and discuss the extent to which OSTP is involved in strategic planning for science and technology. We include a number of recommendations to OSTP, and raise several issues for congressional consideration. In this Administration, top officials of OSTP believe that the broad legislative mandate for OSTP cannot be met fully under present conditions and operating styles within the Executive Office of the President. OSTP management and staff also believe that all their work must be tied to the existing policymaking process in the Executive Office of the President, because they have no independent control over any portion of the U.S. policymaking system. (Author)

Descriptors: *United States government; *Scientific organizations; Policies; Advisory activities; Budgets; Strategy; Research management

Identifiers: *Office of Science and Technology Policy; NTISDODXA

87N16653*# ISSUE 8 PAGE 1111 CATEGORY 81 RPT#:
NASA-TM-89310 NAS 1.15:89310 PB87-103743 86/04/00
40 PAGES UNCLASSIFIED DOCUMENT

UTTL: Summary of strategies for planning Productivity Improvement and Quality Enhancement (PIQE)

CORP: National Aeronautics and Space Administration, Washington, D.C.

SAP: Avail: NTIS HC A03/MF A01

CIO: UNITED STATES

MAJS: /*AUGMENTATION/*IMPROVEMENT/*MANAGEMENT PLANNING/*NASA PROGRAMS/*PRODUCTIVITY/*QUALITY CONTROL

MINS: / REPORTS/ STRATEGY/ SUMMARIES

ABA: GRA

ABS: The Summary of NASA Strategies for Productivity Improvement and Quality Enhancement respond to NASA's eighth top goal: Establish NASA as a leader in the development and application of advanced technology and management practices which contribute to significant increases in both Agency and national productivity. The Strategies provide the framework for development of the agency-wide Productivity Improvement and Quality Enhancement (PIQE) Plans.

85N22253# ISSUE 12 PAGE 1951 CATEGORY 81 RPT#:
PB84-173269 83/00/00 173 PAGES UNCLASSIFIED
DOCUMENT

UTTL: President's private sector survey on cost control,
report on research and development
CORP: President's Private Sector Survey on Cost Control,
Washington, D.C. AVAIL.NTIS
SAP: HC A08/MF A01
CIO: UNITED STATES
MAJS: /*COST REDUCTION/*FEDERAL BUDGETS/*PRESIDENTIAL
REPORTS/*RESEARCH AND DEVELOPMENT
MINS: / PERSONNEL MANAGEMENT/ RESEARCH MANAGEMENT
ABA: M.G.
ABS: Results of the Research and Development Task Force of
the President's Private Sector Survey on Cost Control
in the Federal Government are presented.
Recommendations are made which, when fully
implemented, could result in significant cost savings.
Individual topics addressed include: strategic
planning, R and D management and the budget process;
privatization; administration of research grants to
universities; NASA cost reporting; and research
program reporting.

84N21397# ISSUE 11 PAGE 1746 CATEGORY 81 RPT#:
DE84-006320 ORNL/PPA-84/1 AR-6 CNT#: W-7405-ENG-26
84/01/00 52 PAGES UNCLASSIFIED DOCUMENT

UTTL: ORNL trends and balances, 1984-1989 TLSP: Annual
Report
CORP: Oak Ridge National Lab., Tenn. AVAIL.NTIS
SAP: HC A04/MF A01
CIO: UNITED STATES
MAJS: /*MANAGEMENT METHODS/*PLANNING/*RESEARCH PROJECTS/*
TECHNOLOGY TRANSFER/*TRENDS
MINS: / RESEARCH AND DEVELOPMENT/ RESEARCH MANAGEMENT/ TEST
FACILITIES
ABA: DOE
ABS: Institutional planning and long range goals are
discussed. Topics covered include: history and
accomplishments of ORNL; present role; strategic
planning; research and development programs;
laboratory organizations; nuclear and engineering
technology programs; advanced energy systems programs;
basic physical sciences programs; biomedical and
environmental sciences programs; the Carbide years;
and summary resource projections.

SECTION III

REPORTS, JOURNAL ARTICLES, AND CONFERENCE PAPERS
ON
STRATEGIC MANAGEMENT OF RESEARCH AND DEVELOPMENT

Strategic Management of Technology

Ansoff, H. Igor

Jrnl of Business Strategy v7n3 PP: 28-39 Winter 1987

CODEN: JBSTDK ISSN: 0275-6668 JRNL CODE: JST

DOC TYPE: Journal Paper LANGUAGE: English LENGTH: 12 Pages

AVAILABILITY: ABI/INFORM

As the high-technology industry matures, successful companies will be those that revise their strategies from emphasis on the proliferation of technology-driven products to strategies that emphasize: 1. controlling the rate of technological advances, 2. segmenting the markets according to customer needs, and 3. designing products to meet those needs. One success strategy is to reduce the frequency of product innovation and to concentrate on product improvements that reflect market needs. When new technologies enter the market, firms that have been successful in the past typically cannot transfer their capabilities, skills, and management to the new technology. In order to make the transition, companies can implement a number of competence-enhancing measures. Some of these include: 1. broadening the forecasting and information systems, 2. analyzing the firm's possible success and selecting future strategies, 3. enlarging research and development budgets to include strategic budgets, and 4. changing the organizational structure to provide for flexible responses to changes. Tables. Charts. Graphs. References.

DESCRIPTORS: High technology; Strategic planning; Strategic management; Technological change; Product development; R&D

CLASSIFICATION CODES: 2310 (CN=Planning); 5400 (CN=Research & development)

Strategic Management of Industrial Technology: A Review of the Issues

Birnbaum, Philip H.

IEEE Transactions on Engineering Mgmt vEM-31n4 PP: 186-191

Nov 1984 CODEN: IEEMA4 ISSN: 0018-9391 JRNL CODE: IEE

DOC TYPE: Journal Paper LANGUAGE: English LENGTH: 6 Pages

AVAILABILITY: ABI/INFORM

The English language literature concerning the important relationship between strategic management and technological development in US industrial organizations is reviewed. Although still largely normative, there appears to be a consistent focus on life cycle approaches and a growing body of empirical evidence lending support to the argument that more successful companies use technology that is appropriate to different stages in the product life cycle. Overall, the role of strategic management in technological development is becoming more widely recognized by both practitioners and scholars. Additional research is needed in 2 primary areas: 1. confirmation studies, to investigate appropriateness of the life cycle approach for relating strategic management to appropriate technology, and 2. theoretical work, to improve current understanding of the role of research in strategic management. Charts. Graphs. References.

DESCRIPTORS: Technology; Management; Organizational; Life; Cycles; R&D; Engineering; Product life cycle; Strategic management

CLASSIFICATION CODES: 2500 (CN=Organizational behavior); 5400 (CN=Research & development); 2310 (CN=Planning)

Managing the New Venture Division: Research Findings And Implications For Strategic Management.

Burgelman, R.A.

Stanford University , Stanford, CA

Strategic Management Journal Vol.6, No.1, Jan./March 1985,
P. 39-54. 16 Pages.

COUNTRY OF PUBLICATION: England LANGUAGE: English

CODEN: SMAJDB ISSN: 0143-2095

DOCUMENT TYPE: Journal ARTICLE TYPE: Feature; Research Findings

SPECIAL FEATURES: Bibliography: 25 references; includes Chart, Organization Charts, Tables;

Due to a need to maintain a competitive status in order to survive, many corporations are attempting to facilitate entrepreneurship. This has often resulted in the development of the new venture division (NVD), which has created new managerial problems related to a lack of understanding of the autonomous nature of the NVD. There are differences in characteristics between the present operating system and the NVD. Some problems encountered in integrating the NVD into corporate operations are: 1) domain; 2) synergy; 3) the management system; and 4) personnel transfers. There is considerable ambiguity in areas such as: 1) expected strategic importance in relation to corporate development; 2) volatile assessments of venture activities; and 3) the degree to which these ventures are related to the activities of the operating system. The overall concern is that large corporations should start to structure their operating systems in such a way as to be able to incorporate more autonomy in their respective departments. Creativity and action that is well organized can both create tension which a corporation must be able to deal with. Tables, charts, and an organizational chart are included.

DESCRIPTORS: Management Science; Management Strategy; Strategic Planning; Entrepreneur; Entrepreneurship; Corporate Behavior; Industrial Dynamics; Corporate Planning; Corporate Reorganization; Organizational Development; Operations Research; Operations Management; Autonomy; Creativity; Restructuring

1144167 AD-A156 766/8/XAB

Implementing Strategic Management of Producibility in Military Hardware Design

(Master's thesis)

Dawley, R. S.

Central Michigan Univ., Mount Pleasant.

Corp. Source Codes: 005860000; 394217

May 85 75p

Languages: English Document Type: Thesis

NTIS Prices: PC A04/MF A01 Journal Announcement: GRAI8522

Country of Publication: United States

The balance between functional design requirements and manufacturing capabilities in the design and production of military hardware must be established during the early stages of design development to maximize cost efficiency of the total system and to establish a foundation of preparedness in the event of industrial mobilization. This thesis reveals how such a balance has been obtained historically, and presents a strategy for developing production ready designs. The

characteristics that allow production personnel to readily build to a design are not automatically inherent in the design, but rather must be required to the design agency by high levels of authority. The findings indicate creation of a synergistic effect through design teams composed of both design and manufacturing personnel. Two new acronyms are presented. 1. PRAM-D, Producibility, Reliability, Availability, Maintainability and Durability. 2. DREP, Design Producibility Engineering and Planning, which is synonymous with producibility measures. The benefits of a fully implemented producibility program are optimal cost, schedule, and quality. (Author)

Descriptors: *Productivity; *Design to cost; *Cost effectiveness; *Management; Functions; Requirements; *Maintainability; Industrial personnel; Costs; Optimization; Production; *Military equipment; Industries; Mobilization; Manufacturing; Personnel; *Strategic materials; Theses; Reliability; Synergism

Identifiers: *Strategic management; *PEP(Producibility Engineering and Planning); NTISDODXA

The Importance of an Integrative Approach to Strategic Management Research.

Jemison, D.B.

Academy of Management Review, Vol.6, No.4, Oct. 1981, P. 601-608., Journal.

Strategic management must use integrative research approaches to continue its progress. Mid-range theories must be developed, using researchers with complementary backgrounds. Common theoretical frameworks would be helpful. Mid-range theories can be helpful to multidisciplinary research groups. Doctoral candidates should have more broadened perspectives.

DESCRIPTORS: Management; Research; United States; Management Theory; 0605; 0446; 0528; 0232

Strategic Management in the United States Public Sector: A Research Appraisal and Prospectus.

Jones, N.; Wortmen, M.S.Jr.

Journal of Enterprise Management, Vol.3, No.3, 1981, P. 209, Bibliog. 41, Journal.

Public sector organizations in the United States profess the desire to establish efficient operating procedures. They usually do not achieve this. One reason for their failure is the fact that their research usually aims at justifying decisions already made. Administrative policy science is a method by which public sector organizations may conduct meaningful research. It also serves as a framework for strategic management of long-term goals. Well-designed studies are needed in relation to strategic management in the public sector.

DESCRIPTORS: Charts; Graph; Tables; United States; Public Sector; Goals and Objectives; Efficiency; Government Spending Management; Strategy; Strategic Planning; 1227; 0191; 2256; 0528; 0460; 0251; 0662; 0708; 0605; 0251; 0251

Towards reconciliation of market performance measures to strategic management research.

Lubatkin, Michael; Shrieves, Ronald E.

Academy of Management Review vii July, 1986, p497(16)

SPECIAL FEATURES: illustration; table

CAPTIONS: Content analysis of samples and population by frequency.; Content analysis of sample by adjustment procedures.

The fields of strategic management research and market-based performance research study the same corporate phenomena, but reach different conclusions; for example, management studies indicate that corporate acquisitions improve the performance of the acquiring firm, whereas finance studies that are market-based conclude that acquisitions either do not affect performance or affect it only minimally. Certain research methodologies used by finance researchers, such as the capital assets pricing model and market models, are investigated and adapted for use by management research. The adaptations are evolved based on studies of corporate acquisitions. The adaptation attempted leads to a conclusion that finance research may incompletely measure corporate phenomena and events, due to its research selection of: time frames, samples, statistical analyses, and benchmarks for normal returns.

DESCRIPTORS: Consolidation and merger of corporations--research; Management research--analysis; Financial research--analysis

Linking R&D with the Strategic Management Process of the Firm

Moser, Martin R.; Plante, Michael S.

Engineering Mgmt International (Netherlands) v4n2 PP: 127-132 Apr 1987 ISSN: 0167-5419 JRNL CODE: EMI

DOC TYPE: Journal Paper LANGUAGE: English LENGTH: 6 Pages

AVAILABILITY: ABI/INFORM

There has been a problem with integrating research and development (R&D) with the overall corporate strategic planning process. Factors in the integration problem include: 1. lack of communication between the researchers and the planners regarding corporate goals and strategies, 2. the diversity of knowledge required for strategic decision making for R&D, and 3. the uncertainty in planning for R&D activity. A model is proposed for linking R&D with the firm's strategic management process. In this model, information flows into R&D from 4 sources -- 3 that are internal to the organization (marketing, manufacturing, and technical planning), and one that is outside (technological environment). The technical planning committee plays an important role in this model. The model reinforces functional integration of R&D with other departments as a prerequisite for including R&D planning within the overall strategic planning process. The model suggests that strategic planning and business-level planning are closely aligned. Charts. References.

DESCRIPTORS: Strategic management; R&D; Integration; Technical; Planning; Committees; Organizational structure; Models; Studies

The Strategic Management of R & D. Part II - Organizing for Integration

Petroni, Giorgio

Long Range Planning (UK) v16n2 PP: 51-64 Apr 1983

CODEN: LRPJA4 ISSN: 0024-6301 JRNL CODE: LRP

DOC TYPE: Journal Paper LANGUAGE: English LENGTH: 14 Pages

AVAILABILITY: ABI/INFORM

How well research and development (R&D) activity is integrated with the industrial enterprise depends on the model adopted by management for structures, roles, and human resources. The model chosen should allow integration between R&D and the enterprise and should encourage innovation. Management may take either of 2 roads to integration, as shown by the experience of research laboratories in the US and in Europe. The 2 roads are the managerial integration model and the technological integration model. The technological integration model prevails in Germany. This model views productive activity as a means of social and civil progress. Inside these companies, a technical/scientific orientation is dominate. In English-speaking countries, the managerial integration model prevails. This model is based on entrepreneurial competition. Productive activity is the source of individual wealth. Within these companies, research is seen a means to achieving goals. The technological model may promote a more lasting sense of belonging to the company that could hold greater potential for long-term success. Charts. References.

DESCRIPTORS: Strategic; Planning; R&D; Organizational; Models; Studies; Technological; Integration; Technological change; Management development; Organization development

Canadian Multinationals: Identification, Performance and Strategic Management

Rugman, Alan M.; McIlveen, John

Management International Review (Germany) v25n3 PP: 41-56

1985 CODEN: MINRAY ISSN: 0025-181X JRNL CODE: MIR

DOC TYPE: Journal Paper LANGUAGE: English LENGTH: 16 Pages

AVAILABILITY: ABI/INFORM

Canada's 20 largest multinational enterprises (MNE) are identified and compared to MNEs of the US, Japan, and Europe in terms of size, research and development (R&D), performance, and strategic management. Canadian MNEs tend to be small and to focus R&D efforts on process rather than product innovation. However, their performance is comparable to US, Japanese, and European MNEs. Most MNEs have developed technology-based competitive advantages. In contrast, Canadian MNEs tend to be resource-based and have developed competitive advantages in management and marketing, as demonstrated through analysis of Canada's 4 largest pulp and paper multinationals. These firms have focused on exploiting Canada's vast natural resources through long-term leasing and licensing arrangements with government. Their operations are vertically integrated, promoting capital barriers to industry entry and reducing supplier bargaining power. Marketing strategy has emphasized long-term customer relationships, salesforce expertise, and high-quality service. Tables. References.

DESCRIPTORS: Canada; Multinational corporations; International trade; Performance; Strategic management; Statistical data; Manycompanies; R&D; Sales; Rates of return

0989001 AD-A128 611/1

Strategic Management of Resource Markets: An Exploratory Study of Department of Defense Contractors

(Final rept. for period ending 1982)

Schill, Ronald L. ; Lamm, David V.

Navy Center for Acquisition Research, Monterey, CA.

Corp. Source Codes: 077957000; 413689

Report No.: NCAR-82-1

Apr 82 358p

Languages: English

NTIS Prices: PC A16/MF AO1 Journal Announcement: GRAI8318

Country of Publication: United States

The ability of lower tier suppliers to meet current and long-term requirements of prime defense contractors for strategic resources is the focus of this report. Included in the strategic resources discussed are key materials, technologies, and manufacturing capabilities/capacities vital to the supply of major weapon systems programs. The report looks at a cross-section of Department of Defense (DOD) prime contractors to ascertain whether a strategic management system exists and, if so, how effective certain contractor programs have been. Although the study does find strong evidence that prime DOD contractors are performing good strategic planning, there appears to be rather poor success at strategic resource management. Forecasting, not assuring, that these resources will be available when required seems to be normal industry practice. The report provides a normative model to assist company management in improving strategic resource management programs. (Author)

Descriptors: *Management planning and control; Resource management; Contract administration; Department of Defense; Manufacturing; Materials; Weapon systems; Cost analysis; Marketing; Decision making; Government procurement; Policies; Industries; Regulations; Production; Long range(Time); Feasibility studies; State of the Art; Acquisition; Incentive contracts; Research management

236181 SMJ82G0213

Why Sacrifice Rigour for Relevance? A Proposal for Combining Laboratory and Field Research in Strategic Management.

Schwenk, C.R.

Strategic Management Journal, Vol.3, No.3, July-Sept. 1982, P. 213-225, Bibliog. 39, Journal.

Two common objections to laboratory research in strategic management are discussed. The first objection is to the artificiality of laboratory experiments and the fact that the results are not representative of the real world. The second objection is that in an emerging discipline like strategic management, exploratory field research is necessary in order to identify and define variables. Results then are sometimes dismissed as premature quantification and misleading. These problems are critically examined. A model for research combining both methods is presented. Advantages and difficulties of the dual approach are examined.

DESCRIPTORS: Strategy; Management; Field Study; Strategic Planning; Modeling; 0251; 0605; 1544; 0251; 0239

The Strategic Management of Technological Innovations: A Review and a Model

Shrivastava, Paul; Souder, William E.

Jrnl of Mgmt Studies (UK) v24n1 PP: 25-41 Jan 1987

CODEN: JMASB2 ISSN: 0022-2380 JRNL CODE: JMS

DOC TYPE: Journal Paper LANGUAGE: English LENGTH: 17 Pages

AVAILABILITY: ABI/INFORM

Successful strategic management of technological innovations requires high degrees of integration at several levels of the organization. Detailed field studies with over 200 new product innovations at 50 US firms were conducted. A model that focuses on the concepts of organizational integration and strategic management of new product innovations was proposed. The model: 1. integrates project organizational and environmental levels of variables, 2. posits contingencies between these variables and 3 empirically derived new product development management methods, and 3. is empirically based. Three phase transfer models have been identified -- stage-dominant, phase-dominant, and task-dominant. To ensure successful innovation, organizations may need to select the innovation process that just fits their conditions. Several propositions for empirical testing are also suggested. Tables. Charts. References.

DESCRIPTORS: Strategic management; Innovations; Product development; Models; Corporate culture; Organizational; Strategy; R&D; Organizational structure

Mapping Strategic Management Research.

Thomas, H.

Illinois, Univ. of (Urbana Champaign) , Urbana Champaign, IL

Journal of General Management Vol.9, No.4, Summer 1984, P. 55-72. 9 Pages.

COUNTRY OF PUBLICATION: England LANGUAGE: English

CODEN: JGMAAX ISSN: 0306-3070

DOCUMENT TYPE: Journal

SPECIAL FEATURES: Bibliography: 56 references; includes Tables, Block Diagrams;

Strategic management, the currently accepted term for business policy and planning, represents a field of study which is still at a young and evolutionary stage. Research literature in strategic management is reviewed, showing that the field suffers from an identity crisis about its paradigms and lack of consensus about appropriate research directions and traditions. Etzioni's mixed scanning approach to management research provides a promising method of examining the contribution of alternative approaches to theory achieving a useful measure of reconciliation among them. The need exists for theory development in this field and, most likely, theory search would most profitably be directed toward contingency theories and theoretical models with which to analyze policy questions. An extensive bibliography, figure and tables are included.

DESCRIPTORS: Management Strategy; Strategic Planning; Management Policy; Management Theory; Planning; Business Planning; Strategy; Long Range Planning and Objectives; Organization Planning; Strategic Management; Policy; Research Research and Development

Decision Analysis and Strategic Management of Research and Development: A Comparison Between Applications in Electronics and Ethical Pharmaceuticals

Thomas, Howard

R & D Mgmt (UK) v15n1 PP: 3-22 Jan 1985 ISSN: 0033-6807
JRNL CODE: RED

DOC TYPE: Journal Paper LANGUAGE: English LENGTH: 20 Pages
AVAILABILITY: ABI/INFORM

The process of strategic management of research and development (R&D) is compared in case studies of an ethical pharmaceuticals firm and an electronics firm. Emphasis is placed on the role of strategic decision analysis at the project analysis and evaluation stage. The steps in the decision processes that may lead to new applied research products in both firms include: 1. the generation of ideas, 2. analysis of projects considered for selection, 3. physical product development, and 4. test marketing. It appears that, in both cases, assessors had difficulty in confronting future events, although assessment problems were more complex in the pharmaceuticals firm. Discounting processes must be applied carefully to R&D projects, especially if applied routinely to long-term R&D projects as in ethical pharmaceuticals. There was a perceived need for flexible decision criteria in both cases; both firms also perceived the process of strategic management of R&D as critical to corporate growth. The policy dialogue framework, providing a choice process for projects and portfolios, proved to be very useful in both firms in dealing with conflicting viewpoints. Tables. Graphs. Diagrams. References. Appendix.

DESCRIPTORS: Studies; Strategic management; R&D; Decision analysis; Procedures; Applications

SECTION IV

BOOKS
ON

STRATEGIC PLANNING AND MANAGEMENT OF RESEARCH AND DEVELOPMENT

82V44140 1983 ISS: HD30.28.S732 1983 O-07-000954-6
 658.401 LC-82-17110 OCM08729604
 AUTH: A/Albert, Kenneth J., A/1943-
 UTTL: The Strategic management handbook / Kenneth J.
 Albert, editor in chief.
 McGraw-Hill, New York : 546 p. in various pagings :
 ill. ; 24 cm.
 Includes index.
 LC: Corporate planning. Management.
 NASA: / INDUSTRIES/ MANAGEMENT PLANNING
 WA: / C 83-056283C.1/ HD30.28.S732 1983/ W8370492
 MAIN-TITL TRACE-AUTH* CATLG BY-LC
 82/08/13 AVAIL: / NASA HQ./ NSTL/ WALLOPS

83V52923 1984 ISS: HD31.A58193 1984 O-13-451808-X
 658.4012 LC-83-24487 OCM10146239
 AUTH: A/Ansoff, H. Igor.
 UTTL: Implanting strategic management / H. Igor Ansoff.
 Prentice/Hall International, Englewood Cliffs, NJ :
 xviii, 510 p. : ill. ; 25 cm.
 Includes index. Bibliography: p.
 LC: Management.
 ADDED: Title: Strategic management.
 NASA: / MANAGEMENT PLANNING/ STRATEGY
 JSC: / HD31.A59
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 83/11/07 AVAIL: / JOHNSON

77V19635 1976 ISS: 05 HD29.F76 O-471-03223-9 658.4 LC-
 74-20598
 AUTH: A/Ansoff, H. Igor.; B/Declerck, Roger P.; C/Hayes,
 Robert L., PAT: A/ed.; B/ed.; C/ed.
 UTTL: From strategic planning to strategic management.
 International Conference on Strategic Management, 1st,
 Vanderbilt University, 1973.
 Wiley, New York, 257 p. : ill. ; 24 cm.
 "A Wiley-Interscience publication".@Chiefly presents
 the proceedings of the first International Conference
 on Strategic Management, 1973.
 LC: Management--Congresses. Planning--Congresses.
 Problem solving--Congresses. Management -- Congresses.
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 NASA: / CONFERENCES/ EDUCATION/ MANAGEMENT/ PERSONNEL
 SELECTION/ PLANNING/ PROBLEM SOLVING/ STRATEGY
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86V13432 1985 ISS: HD30.28.A54 1986 O-89930-102-9
 (lib. bdg. alk. paper) LC-85-9489
 AUTH: A/Anthony, William P.
 UTTL: Practical strategic planning : TLSP: a guide and
 manual for line managers / William P. Anthony.
 Quorum Books, Westport, Conn. : xii, 217 p. : ill. ;
 24 cm.
 Includes index. Bibliography: p. (197)-212.
 LC: Strategic planning.
 NASA: / MANAGEMENT PLANNING/ STRATEGY
 GD: / HD30.28.A54 1985/ 8620060/ C 86-004363C.1
 MAIN-AUTH TRACE-TITL* CATLG BY-LC
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84V51551 1981 ISS: HD45.B37 1981 338.520724 LC-81-623010
 AUTH: A/Bass, Frank Myron.; B/Bultez, Alain V. A/1926-
 UTTL: Optimal strategic pricing of technological innovations / by Frank M. Bass, Alain V. Bultez.
 Institute for Research in the Behavioral, Economic, and Management Sciences, Krannert Graduate School of Management, Purdue University, West Lafayette, Ind. : 16, (6) p., (4) leaf of plates : ill. ; 28 cm.
 Paper / Institute for Research in the Behavioral, Economic, and Management Sciences, Krannert Graduate School of Management ; no. 760 Bibliography: p. (4)-(6) (2nd group)
 LC: Technological innovations -- Mathematical models. Prices -- Mathematical models. Production (Economic theory)
 ADDED: Series: Paper (Krannert Graduate School of Management, Institute for Research in the Behavioral, Economic, and Management Sciences) ; no. 760.
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84V23003 1984 ISS: T175.5.S83 1984 O-669-08269-4 (alk. paper) 658.57 LC-83-49526 OCM10696814; RLINCARC85-B1658
 AUTH: A/Bozeman, Barry.; B/Crow, Michael M.; C/Link, Albert N.
 UTTL: Strategic management of industrial R&D / edited by Barry Bozeman, Michael Crow, Albert Link.
 Lexington Books, Lexington, Mass. : xx, 227 p. : ill. ; 24 cm.
 LC: Research, Industrial -- Management.
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84V16194 1969 ISS: HD69.D4B75 658.4 LC-69-11695
 AUTH: A/Broom, H. N.
 UTTL: Business policy and strategic action; TLSP: text, cases, and management game (by) H. N. Broom.
 Prentice-Hall Englewood Cliffs, N.J., xviii, 589 p. illus. 24 cm.
 LC: Decision-making. Decision-making -- Case studies. Management games.
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 AUTH: A/Byars, Lloyd L.
 UTTL: Strategic management : TLSP: planning and implementation : concepts and cases / Lloyd L. Byars.
 Harper & Row, New York, NY : xvi, 992 p. : ill. ; 25 cm.

Includes bibliographies and indexes.
LC: Management. Management -- Case studies.
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(pbk.) 658.4012 LC-84-588
AUTH: A/Byars, Lloyd L.
UTTL: Concepts of strategic management : TLSP: planning and
implementation / Lloyd L. Byars.
Harper & Row, New York : xiv, 320 p. : ill. ; 24 cm.
Includes bibliographies and indexes.
LC: Management.
MAIN-AUTH TRACE-TITL* CATLG BY-LC
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84V58044 1985 ISS: HD30.28.C644 1985 O-534-04518-9
658.4012 LC-84-27827
AUTH: A/Comerford, Robert A.; B/Callaghan, Dennis W.
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UTTL: Strategic management : TLSP: text, tools, and cases
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Callaghan.
Kent Pub. Co., Boston, Mass. : p. cm.
Includes index.
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83V27829 1982 ISS: Z7164.C81H273 NO. 32 016.6584012
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AUTH: A/Daniells, Lorna M.
UTTL: Business intelligence and strategic planning : TLSP: a
selected, annotated bibliography / compiled by Lorna
M. Daniells.
Rev. ed. Baker Library, Harvard Business School,
Boston, Mass (Soldiers Field, Boston 02163) : 46 p. :
23 cm.
Reference list ; no. 32
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AUTH: A/Davidson, William Harley, A/1951-
UTTL: Global strategic management / William H. Davidson.
Wiley, New York : xi, 348 p. : ill. ; 24 cm.
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LC: International business enterprises -- Management.
ADDED: Title: Strategic management.
NASA: / MANAGEMENT
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 AUTH: A/Doz, Yves L.
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 AUTH: A/Ensign, Marie S.; B/Adler, Laurie Nogg.
 UTTL: Strategic planning : TLSP: contemporary viewpoints /
 Marie S. Ensign and Laurie Nogg Adler, editors ;
 foreword by Donald F. Heany.
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 LC: Strategic planning -- Abstracts.
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 SRI International, Business Intelligence Program,
 Menlo Park, Calif. (333 Ravenswood Ave., Menlo Park
 94025) : 24 p. : ill. ; 28 cm.
 Research report / SRI International, Business
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 LC: Industrial management. Strategy. Organizational
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 ADDED: Series: Research report (Business Intelligence
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 AUTH: A/Freeman, R. Edward, A/1951-
 UTTL: Strategic management : TLSP: a stakeholder approach /
 R. Edward Freeman.
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 bibliographies and index.
 LC: Corporate planning.
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86V13935 1986 ISS: HD30.28.H3665 1986 O-471-88127-9
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 AUTH: A/Gardner, James R.; B/Rachlin, Robert.; C/Sweeny,
 Allen. A/1944-; B/1937-
 UTTL: Handbook of strategic planning / James R. Gardner,
 Robert Rachlin, H.W. Allen Sweeny, editors.
 J. Wiley, New York : 1 v. (various pagings) : ill. ;
 24 cm.
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 LC: Strategic planning.
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 GD: / HD30.28.H3665 1986/ 8620088/ 8620641/ C
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 AUTH: A/Glueck, William F.; B/Jauch, Lawrence R.
 UTTL: Strategic management and business policy / William F.
 Glueck, Lawrence R. Jauch.
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 LC: Corporate planning. Management.
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 AUTH: A/Glueck, William F.
 UTTL: Business policy and strategic management / William F.
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 LC: Industrial management. Industrial management --
 Case studies. Corporate planning.
 ADDED: Strategic management. Title: Strategic
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 AUTH: A/Glueck, William F.
 UTTL: Strategic management and business policy / William F.
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 LC: Industrial management -- Addresses, essays,
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AUTH: A/Glueck, William F.; B/Jauch, Lawrence R.
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AUTH: A/Godiwalla, Yezdi Minoo.
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Praeger Publishers, New York, NY : xiv, 335 p. : ill.
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AUTH: A/Grant, John H.; B/King, William Richard, B/1938-
UTTL: The logic of strategic planning / John H. Grant,
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LC: Corporate planning.
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AUTH: A/Haendel, Dan, A/1950-
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LC: International business enterprises -- Planning.
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AUTH: A/Hamermesh, Richard G.
UTTL: Strategic management / Richard G. Hamermesh, editor.
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LC: Management -- Addresses, essays, lectures.
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NASA: / MANAGEMENT
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AUTH: A/Harju, Paavo.
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effects on the profitability of the firm / Paavo
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 AUTH: A/Harvey, Donald F.
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 C.E. Merrill Pub. Co., Columbus : viii, 227 p. : ill.
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 LC: Corporate planning -- United States -- Case
 studies. Management -- United States -- Case studies.
 ADDED: Title: Business policy and strategic
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83V31681 1982 ISS: HD30.28.H38 1982 O-675-09882-3
 658.401 LC-82-80026
 AUTH: A/Harvey, Donald F.
 UTTL: Business policy and strategic management / Don Harvey.
 C.E. Merrill Pub. Co., Columbus, Ohio : xv, 752 p. :
 ill. ; 27 cm.
 Includes bibliographical references and indexes.
 LC: Corporate planning. Management.
 MAIN-AUTH TRACE-TITL* CATLG BY-LC
 83/04/25

84V23142 1984 ISS: HD30.28.H388 1984 O-13-851270-1
 658.4012 LC-84-6939
 AUTH: A/Hax, Arnoldo C.; B/Majluf, Nicolas S., B/1945-
 UTTL: Strategic management : TLSP: an integrative
 perspective / Arnoldo C. Hax, Nicolas S. Majluf.
 Prentice Hall, Englewood Cliffs, N.J. : xvii, 468 p. :
 ill. ; 24 cm.
 Includes index.
 LC: Corporate planning. Management.
 NASA: / INDUSTRIAL MANAGEMENT/ PLANNING
 GD: / C 86-026028C.1/ HD30.28.H388 1984/ 8620312 JPL:
 / HD30.28.H411 1984
 MAIN-AUTH TRACE-TITL+AUTH* CATLG BY-LC
 84/03/28 AVAIL: / GODDARD/ JPL

84V32238 1984 ISS: HD30.28.R4 1984 O-88410-972-0;
 O-88410-973-9 (pbk.) 658.4012 LC-84-11103 OCM10850990
 AUTH: A/Hax, Arnoldo C.
 UTTL: Readings on strategic management / edited by Arnoldo
 C. Hax.
 Ballinger Pub. Co., Cambridge, MA : x, 224 p. : ill. ;
 24 cm.
 Includes index.
 LC: Corporate planning -- Addresses, essays, lectures.
 NASA: / INDEXES (DOCUMENTATION)/ MANAGEMENT PLANNING/
 ORGANIZATIONS/ PLANNING/ STRATEGY
 GD: / C 86-026556C.1/ HD30.28.R4 1984/ 8620313 HQ: /
 HD30.28.R4
 MAIN-TITL TRACE-AUTH* CATLG BY-LC
 84/05/29 AVAIL: / GODDARD/ NASA HQ.

84V22981 1983 ISS: HD30.28.H512 1983 O-03-061961-0
658.4012 LC-82-72176
AUTH: A/Higgins, James M.
UTTL: Organizational policy and strategic management : TLSP:
text and cases / James M. Higgins.
2nd ed. Dryden Press, Chicago : xiv, 816 p. : ill. :
24 cm.
Includes bibliographies and index.
LC: Corporate planning. Management.
MAIN-AUTH TRACE-TITL* CATLG BY-LC
84/03/21

79V47454 1980 ISS: 00 HD30.28.H52 O-138511-96-9
658.401 LC-79-23758
AUTH: A/Higgins, John Christopher.
UTTL: Strategic and operational planning systems : TLSP:
principles and practice / J. C. Higgins.
Prentice-Hall International, Englewood Cliffs, N.J. :
\$24.95 Includes index. Bibliography: p.
LC: Corporate planning.
MAIN-AUTH TRACE-TITL* CATLG BY-LC
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84V11091 1984 ISS: HD31.S696393 1984 O-314-77915-9
658.4012 LC-83-26060
AUTH: A/Hofer, Charles W.
UTTL: Strategic management : TLSP: text & cases / Charles W.
Hofer ... (et al.).
2nd ed. West Pub. Co., St. Paul, Minn. : xiv, 766 p. :
ill. ; 26 cm.
Includes bibliographical references and index.
LC: Management -- Case studies. Industrial management
-- Case studies.
MAIN-TITL TRACE-AUTH* CATLG BY-LC
83/12/14

79V50254 1980 ISS: 00 HD31.S69639 O-829903-31-3 658.4
LC-79-25139
AUTH: A/Hofer, Charles W.
UTTL: Strategic management : TLSP: a casebook in business
policy and planning / Charles W. Hofer ... (et al.).
West Pub. Co., St. Paul : xiv, 613 p. : ill. ; 26 cm.
\$14.36 Includes index.
LC: Management -- Case studies. Industrial management
-- United States -- Case studies.
ADDED: N*US***
MAIN-AUTH TRACE-AUTH* CATLG BY-LC
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86V10770 1985 ISS: HD70.U5N513 1985 O-444-87754-1
 658.40120952 LC-85-6745 OCM11917103
 AUTH: A/Kagono, Tadao, A/1947-
 UTTL: Strategic vs. evolutionary management : TLSP: a
 U.S.-Japan comparison of strategy and organization /
 Tadao Kagono ... (et al.) ; in collaboration with
 Shiori Sakamoto, Johny K. Johansson.
 North-Holland, Amsterdam, The Netherlands ; New York,
 N.Y. : xii, 328 p. : ill. ; 23 cm.
 Advanced series in management ; v. 10 Translation of:
 Nichi-Bei kigy o no keiei hikaku. Includes
 bibliographical references.
 LC: Industrial management -- United States. Industrial
 management -- Japan. Strategic planning -- United
 States. Strategic planning -- Japan. Industrial
 organization -- United States. Industrial organization
 -- Japan.
 ADDED: Title: U.S.-Japan comparison of strategy and
 organization.
 NASA: / BIBLIOGRAPHIES/ COMPARISON/ INDUSTRIAL
 MANAGEMENT/ INDUSTRIES/ JAPAN/ MANAGEMENT PLANNING/
 PLANNING/ STRATEGY/ UNITED STATES
 GD: / C 86-004892C.1/ HD70.U5N513 1985/ 8620073 LA: /
 HD70.U5N513
 MAIN-TITL TRACE-SERS*TITL*AUTH* CATLG BY-LC
 85/03/14 PUBL In NETHERLANDS AVAIL: / GODDARD/
 LANGLEY

79V38272 1974 ISS: 00 HD69.S6K38 658.022 LC-74-170988
 AUTH: A/Kastens, Merritt L.
 UTTL: A president's operating manual for strategic
 planning; TLSP: a program for planning and
 implementing strategies in a small business (by)
 Merritt L. Kastens.
 Presidents Association, New York, 47 p. port. 23 cm.
 Presidents Association. Special study no. 56 \$20.00
 LC: Small business -- Management.
 MAIN-AUTH TRACE-SERS*TITL* CATLG BY-LC
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83V46328 1984 ISS: HD58.7.K42 1984 O-471-86834-5
 658.4094 LC-83-19786 RLINCARC85-B950; OCM09971062
 AUTH: A/Keegan, Warren J.
 UTTL: Making judgments, choices, and decisions in business :
 TLSP: effective management through self-knowledge /
 Warren J. Keegan.
 Wiley, New York : x, 242 p. : ill. ; 22 cm.
 The Wiley management series on problem solving,
 decision making, and strategic thinking Includes
 bibliographies and index.
 LC: Management -- Psychological aspects. Typology
 (Psychology)
 NASA: / COMMERCE/ DECISIONS/ JUDGMENTS/ MANAGEMENT/
 PSYCHOLOGY/ SELECTION
 AM-ATL: / HD58.7.K42 1984 HQ: / HD58.7.K42
 MAIN-AUTH TRACE-SERS*TITL* CATLG BY-LC
 83/09/14 AVAIL: / AMES-ATL/ NASA HQ.

78V46610 1978 ISS: 46 HD30.28.K56 O-442-80440-7
 309.212 LC-78-3398
 AUTH: A/King, William Richard.; B/Cleland, David I. A/1938
 PAT: B/joint author.
 UTTL: Strategic planning and policy / William R. King, David
 J. Cleland. -
 Van Nostrand Reinhold, New York : ix, 374 p. : ill. :
 24 cm.
 Includes index.
 LC: Planning.
 NASA: / MANAGEMENT PLANNING/ POLICIES/ STRATEGY
 MAIN-AUTH TRACE-TITL*AUTH* CATLG BY-LC
 78/08/30 AVAIL: / AMES-ATL/ LANGLEY/ NASA HQ.

84V19715 1984 ISS: HD30.28.C648 1984 O-13-154972-3
 658.4012 LC-84-4781
 AUTH: A/Lamb, Robert, A/1941 June 19-
 UTTL: Competitive strategic management / Robert Boyden Lamb,
 editor.
 Prentice-Hall, Englewood Cliffs, N.J. : xvii, 686 p. :
 ill. ; 24 cm.
 Bibliography: p.
 LC: Corporate planning -- Addresses, essays, lectures.
 MAIN-TITL TRACE-AUTH* CATLG BY-LC
 84/02/28

84V45504 1977 ISS: 32 HD38.S744 LC-76-49950
 AUTH: A/Lorange, Peter; B/Vancil, Richard F.
 UTTL: Strategic planning systems / edited by Peter Lorange
 and Richard F. Vancil.
 Prentice-Hall, Englewood Cliffs, N. J. : xv, 364 p. :
 ill. ; 24 cm.
 Bibliography: p. 362-364.
 LC: Corporate planning -- Addresses, essays, lectures.
 NASA: / MANAGEMENT PLANNING/ STRATEGY
 JPL: / HD38.S898 KN: / HD38.L865 1977
 MAIN-AUTH TRACE-TITL*AUTH* CATLG BY-FACILITY
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82V30536 1982 ISS: HD30.28.I46 O-13-451815-2
 658.4012 LC-81-5854
 AUTH: A/Lorange, Peter.
 UTTL: Implementation of strategic planning / (edited by)
 Peter Lorange.
 Prentice Hall, Englewood Cliffs, NJ : vi, 231 p. :
 ill. ; 24 cm.
 Based on papers presented at a workshop held during
 the twenty-fourth international meeting of the
 Institute of Management Sciences, June 18-23, 1979,
 Honolulu, Hawaii. Includes bibliographical references
 and indexes.
 LC: Corporate planning -- Congresses.
 NASA: / CONFERENCES/ MANAGEMENT PLANNING
 MAIN-TITL TRACE-AUTH* CATLG BY-LC
 81/04/10 AVAIL: / NASA HQ.

83V39498 1984 ISS: HD30.28.M36 1984 O-471-86436-6
658.4012 LC-83-17103 RLINCARC86-B1774
AUTH: A/Marrus, Stephanie K., A/1947-
UTTL: Building the strategic plan : TLSP: find, analyze, and
present the right information / Stephanie K. Marrus.
Wiley, New York : xiv, 342 p. : ill. ; 26 cm.
"A Ronald Press publication." Includes index.
Bibliography: p. 331-333.
LC: Corporate planning -- Handbooks, manuals, etc.
NASA: / INDUSTRIAL MANAGEMENT/ MANAGEMENT PLANNING
AM-ATL: / HD30.28.M36 1984 GD: / C 85-039162C.1/
HD30.28.M36 1984/ S 86-005311C.2/ 8530199/ 8620079
MAIN-AUTH TRACE-TITL* CATLG BY-LC
83/08/01 AVAIL: / AMES-ATL/ GODDARD

81V31444 1981 ISS: 39 H61.M4256 LC-80-29657
AUTH: A/Mason, Richard O.; B/Mitroff, Ian I.
UTTL: Challenging strategic planning assumptions : TLSP:
theory, cases and techniques /
Wiley, New York : xii, 324 p. : ill ; 24 cm.
"A Wiley-Interscience publication." Bibliography: p.
303-315. Includes index.
LC: Policy sciences. Planning. Hypothesis.
NASA: / PLANNING
JPL: / H61.M411
MAIN-AUTH TRACE-TITL*AUTH* CATLG BY-NASA HQ
81/12/07 COPYRIGHT AVAIL: / JPL/ NASA HQ.

83V30150 1983 ISS: HD30.35.M394 1983 O-8019-7372-4
(pbk.) O16.65 LC-82-46080
AUTH: A/Mayros, Van.; B/Werner, D. Michael.
UTTL: Information sourcebook for marketers and strategic
planners / Van Mayros, D. Michael Werner.
Chilton, Radnor, Pa. : x, 326 p. ; 28 cm.
Includes indexes.
LC: Industrial management -- Information services.
Business -- Information services. Industrial
management -- Bibliography. Business -- Bibliography.
Management information systems. Information storage
and retrieval systems -- Business.
MAIN-AUTH TRACE-TITL*AUTH* CATLG BY-LC
83/05/20

84V51798 1985 ISS: HD30.28.M3855 1985 O-08-031810-X
; O-08-031809-6 (soft) 658.4012 LC-84-25363
OCM11371924
AUTH: A/McNamee, Patrick B.
UTTL: Tools & techniques for strategic management / by
Patrick B. McNamee.
1st ed. Pergamon Press, Oxford (Oxfordshire) ; New
York : xxvi, 319 p. : ill. ; 24 cm.
Includes bibliographies.
LC: Corporate planning. Industrial management.
ADDED: Title: Tools and techniques for strategic
management.
NASA: / INDUSTRIAL MANAGEMENT/ ORGANIZATIONS/ STRATEGY
LA: / HD30.28.M3855
MAIN-AUTH TRACE-TITL* CATLG BY-LC
84/10/25 PUBL In UNITED KINGDOM AVAIL: / LANGLEY

83V23887 1983 ISS: HD30.28.M386 1983 O-07-045675-5
658.4012 LC-83-7921
AUTH: A/McNichols, Thomas J.
UTTL: Executive policy and strategic planning / Thomas J. McNichols.
2nd ed. McGraw-Hill, New York : xvi, 213 p. ; 23 cm.
McGraw-Hill series in management Includes index.
Bibliography: p.
LC: Corporate planning -- United States. Industrial management -- United States.
MAIN-AUTH TRACE-SERS*TITL* CATLG BY-LC
83/03/28

77V39257 1977 ISS: 93 HD30.28.M3
AUTH: A/McNichols, Thomas J.
UTTL: Executive policy and strategic planning.
McGraw-Hill, New York, xvii, 189 p. illus.
LC: Corporate planning--United States. Industrial management--United States.
NASA: / INDUSTRIAL MANAGEMENT/ LEADERSHIP/ MANAGEMENT PLANNING/ POLICIES/ UNITED STATES
MAIN-AUTH TRACE-TITL* CATLG BY-LC
77/10/07 AVAIL: / WALLOPS

85V15130 1977 ISS: HD30.4.M47 O-8144-2212-8 658.57
LC-77-14599
AUTH: A/Merrifield, D. Bruce A/1921-
UTTL: Strategic analysis, selection, and management of R & D projects / D. Bruce Merrifield.
Amacom, New York : 54 p. : ill. ; 23 cm.
An AMA management briefing Includes bibliographical references.
LC: Research, Industrial. New products.
ADDED: Series: American Management Association. An AMA management briefing.
MAIN-AUTH TRACE-TITL* CATLG BY-LC
77/08/30

75V54147 1971 ISS: 62 T175.5.M5 O--8144--31-O LC-78-143264 102023; S 74-000191C.1; C 74-000209C.2
AUTH: A/Miller, Ernest Charles A/1925
UTTL: Advanced techniques for strategic planning.
(New York) American Management Association 174 p.
104. AMA research study 104
LC: Management. Planning.
ADDED: American Management Association research study
NASA: / MANAGEMENT/ PLANNING
MAIN-AUTH TRACE-SERS*CORP* CATLG BY-GODDARD
75/10/06 AVAIL: / GODDARD

84V62323 1985 ISS: HD38.25.U6M55 1985 O-471-81026-6
658.400973 LC-85-616 HD38.25.U6M55; OCM11621717
AUTH: A/Mills, Daniel Quinn.
UTTL: The new competitors : TLSP: a report on American management from the Harvard Business School / D. Quinn Mills.
Harvard University. Graduate School of Business Administration.

Wiley, New York : xiii, 391 p. ; 25 cm.
Wiley management series on problem solving, decision making, and strategic thinking Includes index.
LC: Executives -- United States. Industrial management -- United States. Management.
NASA: / INDUSTRIAL MANAGEMENT
JSC: / HD38.25.U6M55 HQ: / HD38.25.U6M55
MAIN-AUTH TRACE-SERS*CORP*TITL* CATLG BY-LC
85/01/08 AVAIL: / JOHNSON/ NASA HQ.

82V48483 1978 ISS: HD30.28.M66 O-87186-241-7
658.401 LC-78-23401
AUTH: A/Moskow, Michael H.
UTTIL: Strategic planning in business and government / by Michael H. Moskow.
Committee for Economic Development, New York : xiii, 86 p. ; 23 cm.
A Supplementary paper of the Committee for Economic Development ; 41
LC: Corporate planning -- United States.
Administrative agencies -- United States -- Planning.
NASA: / INDUSTRIAL MANAGEMENT/ MANAGEMENT PLANNING/ UNITED STATES
GD: / C 85-039402C.1/ HD30.28.M66/ S 86-004629C.2/ 8530201/ 8620082
MAIN-AUTH TRACE-TITL* CATLG BY-LC
78/10/03 AVAIL: / GODDARD

76V11585 1975 ISS: OO HF5548.2.M8219 O-582450-06-3
658.054 LC-75-331268
AUTH: A/Mumford, Enid.; B/Pettigrew, Andrew M., PAT: B/joint author.
UTTIL: Implementing strategic decisions / Enid Mumford, Andrew Pettigrew.
Longman, London ; New York : xviii, 241 p. : ill. ; 24 cm.
Business strategy and planning Includes index.
Bibliography: p. 227-232.
LC: Electronic data processing departments.
Technological innovations.
MAIN-AUTH TRACE-SERS*TITL*AUTH* CATLG BY-LC
/ / PUBL In UNITED KINGDOM

83V52823 1984 ISS: HD30.28.067 1984 O-444-86831-3
(U.S.) 658.40120724 LC-83-20736
AUTH: A/Naylor, Thomas H.; B/Thomas, Celia, A/1936-; B/1953-
UTTIL: Optimization models for strategic planning / edited by Thomas H. Naylor and Celia Thomas.
North-Holland ; Sole distributors for the U.S.A. and Canada, Elsevier Science Pub. Co., Amsterdam ; New York : New York, N.Y. : viii, 184 p. : ill. ; 24 cm.
Studies in management science and systems ; v. 10
LC: Corporate planning -- Mathematical models -- Addresses, essays, lectures. Planning -- Mathematical models -- Addresses, essays, lectures. Mathematical optimization -- Addresses, essays, lectures.
MAIN-TITL TRACE-SERS*AUTH* CATLG BY-LC
83/11/02 PUBL In NETHERLANDS

83V14726 1983 ISS: HF5415.13.N439 1983
 0-87814-206-1 658.8 LC-83-2160
 AUTH: A/Neidell, Lester A.
 UTTL: Casebook in strategic marketing management / Lester A.
 Neidell.
 PennWell Books, Tulsa, Okla. : xxvi, 318 p. : ill. ;
 24 cm.
 LC: Marketing management -- Case studies. Marketing --
 Management -- Case studies.
 MAIN-AUTH TRACE-TITL* CATLG BY-LC
 83/01/14

82V44105 1983 ISS: HF5415.13.N44 1983 0-87814-204-5
 658.802 LC-82-15132
 AUTH: A/Neidell, Lester.
 UTTL: Strategic marketing management : TLSP: an integrated
 approach / Lester Neidell.
 PennWell Books, Tulsa, Okla. : xiii, 546 p. : ill. ;
 25 cm.
 Includes index.
 LC: Marketing management. Marketing -- Management.
 MAIN-AUTH TRACE-TITL* CATLG BY-LC
 82/08/09

80V48408 1977 ISS: 00 HD30.28.N48 658.42 LC-77-150933
 AUTH: A/Neuschel, Richard F.
 UTTL: The chief executive's strategic role and
 responsibilities / Richard F. Neuschel.
 Presidents Association, Chief Executive Officers'
 Division of American Management Associations, New York
 : 47 p. ; 23 cm.
 Special study - The Presidents Association ; no. 65
 \$20 Includes bibliographical references.
 LC: Corporate planning. Executive ability.
 ADDED: Series: Presidents Association. Special study ;
 no. 65.
 MAIN-AUTH TRACE-TITL* CATLG BY-LC
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86V11017 1981 ISS: HG4028.C4036 658.152 LC-
 81-187219 OCM08133802
 AUTH: A/O'Connor, Rochelle.
 UTTL: Resource allocation and strategic planning / by
 Rochelle O'Connor.
 Conference Board, New York : 18 p. : ill. ; 28 cm.
 Information bulletin / the Conference Board ; no. 99
 LC: Capital investments. Corporate planning.
 ADDED: Series: Information bulletin (Conference Board)
 ; no. 99.
 NASA: / INVESTMENTS/ MANAGEMENT PLANNING/
 ORGANIZATIONS/ RESOURCE ALLOCATION
 LA: / HG4028.C4036
 MAIN-AUTH TRACE-TITL* CATLG BY-LC
 82/01/09 AVAIL: / LANGLEY

83V45295 1983 ISS: HD30.28.027 1983 O-8237-0269-3
 (pbk.) 658.4012 LC-83-170613 OCM09444957
 AUTH: A/O'Connor, Rochelle.
 UTTL: Tracking the strategic plan / by Rochelle O'Connor.
 Conference Board, New York, N.Y. : iv, 16 p. : 28 cm.
 Conference Board report ; no. 830
 LC: Corporate planning -- United States -- Evaluation.
 NASA: / EVALUATION/ MANAGEMENT PLANNING/ ORGANIZATIONS
 LA: / HD30.28.027
 MAIN-AUTH TRACE-SERS*TITL* CATLG BY-LC
 83/08/24 AVAIL: / LANGLEY

83V31677 1983 ISS: HD30.28.P28 1983 O-03-061828-2
 658.4012 LC-82-72038
 AUTH: A/Paine, Frank T.; B/Anderson, Carl R.
 UTTL: Strategic management / Frank T. Paine, Carl R.
 Anderson.
 Dryden Press, Chicago : 392 p. : ill. : 24 cm.
 Dryden Press series in management Includes
 bibliographical references and index.
 LC: Corporate planning. Management.
 MAIN-AUTH TRACE-SERS*TITL*AUTH* CATLG BY-LC
 83/04/25

83V55111 1981 ISS: HD31.P34 O-316-69400-2 658.403
 LC-80-83307
 AUTH: A/Patz, Alan L., A/1939-
 UTTL: Strategic decision analysis : TLSP: a general
 management framework / Alan L. Patz.
 Little, Brown, Boston : xviii, 669 p. : ill. : 25 cm.
 Includes bibliographical references and index.
 LC: Management. Decision-making.
 MAIN-AUTH TRACE-TITL* CATLG BY-LC
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86V11424 1985 ISS: HD30.28.P34 1985 O-256-03230-0
 658.4012 LC-84-81127 OCM11799352
 AUTH: A/Pearce, John A.; B/Robinson, Richard B. (Richard
 Braden), B/1947-
 UTTL: Strategic management : TLSP: strategy formulation and
 implementation / John A. Pearce II, Richard B.
 Robinson, Jr.
 2nd ed. R.D. Irwin, Homewood, Ill. : xix, 1041 p. :
 ill. : 24 cm.
 The Irwin series in management and the behavioral
 sciences Includes bibliographies and indexes.
 LC: Corporate planning. Management.
 NASA: / BIBLIOGRAPHIES/ FORMULATIONS/ INDEXES
 (DOCUMENTATION)/ MANAGEMENT/ ORGANIZATIONS/ STRATEGY
 LE: / HD30.28.P34 1985
 MAIN-AUTH TRACE-SERS*TITL*AUTH* CATLG BY-LC
 85/08/06 AVAIL: / LEWIS

78V19250 1978 ISS: 00 HF5548.2.R247 O-879093-89-7
658.4032 LC-78-2660
AUTH: A/Radford, K. J.
UTTL: Information systems for strategic decisions / K. J. Radford.
Reston Pub. Co., Reston, Va. : xiii, 239 p. : ill. ; 24 cm.
Includes index.
LC: Management information systems. Decision-making.
NASA: / DECISION MAKING/ MANAGEMENT INFORMATION SYSTEMS
MAIN-AUTH TRACE-TITL* CATLG BY-LC
/ / AVAIL: / NASA HQ.

80V13881 1980 ISS: 00 HD30.28.R3 O-835970-68-X
658.4012 LC-79-27214
AUTH: A/Radford, K. J.
UTTL: Strategic planning : TLSP: an analytical approach / K. J. Radford.
Reston Pub. Co., Reston, Va. : x, 262 p. : ill. ; 24 cm.
Includes bibliographical references and index.
LC: Corporate planning.
NASA: / PLANNING/ PROFILE METHOD (FORECASTING)
MAIN-AUTH TRACE-TITL* CATLG BY-LC
/ / AVAIL: / LANGLEY

79V39482 1979 ISS: 00 HD30.28.R67 O-814455-14-X
658.401 LC-79-11194
AUTH: A/Rothschild, William E.
UTTL: Strategic alternatives : TLSP: selection, development, and implementation / William E. Rothschild.
Amacom, New York : ix, 242 p. : ill. ; 22 cm.
\$14.95 Includes index.
LC: Corporate planning. Management.
MAIN-AUTH TRACE-TITL* CATLG BY-LC
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86V13799 1986 ISS: HD30.28.R677 1986 O-201-16898-7
(pbk.) LC-85-18613
AUTH: A/Rowe, Alan J.; B/Mason, Richard O.; C/Dickel, Karl E.
UTTL: Strategic management : TLSP: a methodological approach / Alan J. Rowe, Richard O. Mason, Karl E. Dickel.
Addison-Wesley Pub. Co., Reading, Mass. : viii, 391 p. : ill. ; 28 cm.
Includes bibliographies and index.
LC: Strategic planning -- United States. Management -- United States -- Case studies.
NASA: / MANAGEMENT/ METHODOLOGY/ PLANNING/ UNITED STATES
GD: / HD30.28.R677 1986/ 8620085/ C 86-004520C.1
MAIN-AUTH TRACE-TITL*AUTH* CATLG BY-LC
03/27/86 AVAIL: / GODDARD

82V17067 1982 ISS: HD31.R775 O-201-06387-5 (pbk.)
 658.4012 LC-81-10778
 AUTH: A/Rowe, Alan J.; B/Mason, Richard O.; C/Dickel, Karl E.
 UTTL: Strategic management and business policy : TLSP: a methodological approach / Alan J. Rowe, Richard O. Mason, Karl E. Dickel.
 Addison-Wesley Pub. Co., xi, 544 p. : ill. ; 28 cm.
 Includes bibliographies and index.
 LC: Management. Corporate planning. Management -- United States -- Case studies.
 NASA: / INDUSTRIAL MANAGEMENT/ UNITED STATES
 GD: / C 85-039055C.1/ HD31.R775/ 8530206
 MAIN-AUTH TRACE-TITL*AUTH* CATLG BY-LC
 81/06/09 AVAIL: / GODDARD

84V36571 1985 ISS: HD30.28.R68 1985 O-201-06087-6
 658.4012 LC-84-14456 OCM10996133
 AUTH: A/Rowe, Alan J.; B/Mason, Richard O.; C/Dickel, Karl E.
 UTTL: Strategic management and business policy : TLSP: a methodological approach / Alan J. Rowe, Richard O. Mason, Karl E. Dickel.
 2nd ed. Addison-Wesley Pub. Co., Reading, Mass. : xi, 682 p. : ill. ; 28 cm.
 Includes index.
 LC: Corporate planning. Management -- United States -- Case studies.
 NASA: / CASE HISTORIES/ COMMERCE/ MANAGEMENT METHODS/ MANAGEMENT PLANNING/ MANAGEMENT SYSTEMS/ ORGANIZATIONS / PLANNING/ POLICIES/ UNITED STATES
 LA: / HD30.28.R68 1985
 MAIN-AUTH TRACE-TITL*AUTH* CATLG BY-LC
 84/07/03 AVAIL: / LANGLEY

83V33408 1979 ISS: HD31.R784 658.403 LC-81-100875
 AUTH: A/Royce, William S.
 UTTL: Generating strategic alternatives / William S. Royce. SRI International, Business Intelligence Program, Menlo Park, Calif. (333 Ravenswood Ave., Menlo Park, Calif. 94025) : 28 p. : ill. ; 28 cm.
 Research report / SRI International, Business Intelligence Program ; 620 Cover title.
 LC: Industrial management.
 ADDED: Series: Research report (Business Intelligence Program (SRI International)) ; 620.
 MAIN-AUTH TRACE-TITL* CATLG BY-LC
 81/04/27

84V23871 1985 ISS: HD30.28.R93 1984 O-394-33946-0
 658.4012 LC-84-6981
 AUTH: A/Ryans, John K.; B/Shanklin, William L.
 UTTL: Strategic planning, concepts and implementation : TLSP: text, readings, and cases / John K. Ryans, Jr., William L. Shanklin.
 Random House, New York, N.Y. : xii, 379 p. ; 24 cm.
 Includes index. Bibliography: p.
 LC: Corporate planning.
 ADDED: Title: Strategic planning.

NASA: / MANAGEMENT PLANNING
GD: / C 86-004132C.1/ HD30.28.R93 1985/ 8620069
MAIN-AUTH TRACE-TITL*AUTH* CATLG BY-LC
84/04/02 AVAIL: / GODDARD

79V38288 1976 ISS: 00 HD38.S324 O-814440-63-O 658.401
LC-76-28756

AUTH: A/Schaffir, Walter B.
UTTL: Strategic business planning : TLSP: some questions for
the chief executive / Walter B. Schaffir.
Presidents Association, New York : 52 p. : ill. ; 23
cm.
Presidents Association special study ; no. 63 \$10.00
LC: Corporate planning.
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MAIN-AUTH TRACE-SERS*CORP*TITL* CATLG BY-LC
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84V50766 1984 ISS: HD30.28.S398 1984 O-8237-0288-X
(pbk.) 658.4092 LC-84-194328 OCM10775148

AUTH: A/Shaeffer, Ruth G.
UTTL: Developing strategic leadership / by Ruth Gilbert
Shaeffer.
Conference Board, New York, N.Y. : v, 45 p. : ill. ;
28 cm.
Conference Board report ; no. 847 Includes
bibliographical references.
LC: Corporate planning. Leadership.
NASA: / LEADERSHIP/ ORGANIZATIONS/ PLANNING/ STRATEGY
JSC: / HD30.28.S39 LA: / HD30.28.S398
MAIN-AUTH TRACE-SERS*TITL* CATLG BY-LC
84/08/02 AVAIL: / JOHNSON/ LANGLEY

86V13802 1985 ISS: HD30.28.S42 1985 O-07-056513-9
LC-84-19453

AUTH: A/Sharplin, Arthur.
UTTL: Strategic management / Arthur Sharplin.
McGraw-Hill, New York : xvii, 588 p. : ill. ; 25 cm.
McGraw-Hill series in management Includes
bibliographies and index.
LC: Corporate planning. Industrial management.
NASA: / INDUSTRIAL MANAGEMENT/ MANAGEMENT PLANNING
GD: / HD30.28.S42 1985/ 8620070/ C 86-004181C.1
MAIN-AUTH TRACE-SERS*TITL* CATLG BY-LC
03/27/86 AVAIL: / GODDARD

82V30516 1982 ISS: HD30.28.S43 O-201-06664-5
658.4012 LC-81-1446

AUTH: A/Sherman, Philip M.
UTTL: Strategic planning for technology industries / Philip
M. Sherman.
Addison-Wesley Pub. Co., Reading, MA : xiv, 305 p. :
ill. ; 25 cm.
Includes bibliographical references and index.
LC: Corporate planning.
ADDED: Title: Technology industries.
MAIN-AUTH TRACE-TITL* CATLG BY-LC
81/02/26

83V24851 1979 ISS: HD31.S576 658.4012 LC-81-125730
 AUTH: A/Skov, Paul B.; B/Spetzler, Carl S.
 UTTL: Strategic management process / by Paul V. Skov, Carl S. Spetzler.
 SRI International, Business Intelligence Program, Menlo Park, CA (333 Ravenswood Ave., Menlo Park, 94025) : 24 p. : ill. : 29 cm.
 Research report / SRI International, Business Intelligence Program ; 617 Cover title.
 LC: Management.
 ADDED: Series: Research report (SRI International, Business Intelligence Program) ;621. Series: Research report (Business Intelligence Program (SRI International)) ; 617.
 MAIN-AUTH TRACE-SERS*TITL*AUTH* CATLG BY-LC
 81/10/10
 LC: Guided missiles. Atomic weapons. United States -- Military policy.
 ADDED: N*US***
 MAIN-CORP TRACE-SERS*TITL*AUTH* CATLG BY-LC
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79V23829 1979 ISS: 23 HD30.28.S72 1979 O-02-931110-1 658.401 LC-78-20647
 AUTH: A/Steiner, George Albert, A/1912-
 UTTL: Strategic planning : TLSP: what every manager must know / George A. Steiner.
 Free Press, New York : ix, 383 p. : ill. : 24 cm.
 Includes bibliographical references and index.
 LC: Corporate planning.
 ADDED: Title: What every manager must know.
 NASA: / CONTROL THEORY/ DECISION THEORY/ INDUSTRIAL MANAGEMENT/ MANAGEMENT PLANNING/ OPERATIONS RESEARCH/ PLANNING/ STRATEGY/ TRENDS
 GD: / C 85-039022C.3/ C 86-001153C.1/ HD30.28.S72 1979 / S 86-001161C.2/ 8521290/ 8530208 JPL: / HD30.28.S822
 KN: / HD30.28.S822 LA: / HD30.28.S72 1979 LE: / HD30.28.S72
 MAIN-AUTH TRACE-TITL* CATLG BY-LC
 79/04/09 COPYRIGHT AVAIL: / AMES-ATL/ GODDARD/ JPL/ KENNEDY/ LANGLEY/ LEWIS/ NASA HQ.

86V12072 1985 ISS: HD30.28.S728 1985 O-669-10965-7 (alk. paper) 658.4012 LC-85-40319 RLINCARC86-B193; OCM12375641
 AUTH: A/Steiss, Alan Walter.
 UTTL: Strategic management and organizational decision making / Alan Walter Steiss.
 Lexington Books, Lexington, Mass. : viii, 240 p. : ill. : 24 cm.
 Includes bibliographical references and indexes.
 LC: Corporate planning. Decision-making.
 NASA: / DECISION MAKING/ INDUSTRIAL MANAGEMENT/ MANAGEMENT PLANNING/ ORGANIZATIONS
 AM-ATL: / HD30.28.S728 1985 GD: / C 86-004199C.1/ HD30.28.S728 1985/ 8620066 JSC: / HD30.28.S72
 MAIN-AUTH TRACE-TITL* CATLG BY-LC
 86/01/17 AVAIL: / AMES-ATL/ GODDARD/ JOHNSON

80V11198 1980 ISS: 00 HD31.C3563 0-471277-05-3
658.4012 LC-79-41492
AUTH: A/Stopford, John M.; B/Channon, Derek F.;
C/Constable, John, C/1939-
UTTL: Cases in strategic management / (edited by) John M.
Stopford, Derek F. Channon, John Constable.
J. Wiley, Chichester (Eng.) ; New York : xvi, 541 p. :
ill. ; 24 cm.
16.50 "A Wiley-Interscience publication."
LC: Management -- Case studies. Industrial management
-- Great Britain -- Case studies.
ADDED: E*UK** Strategic management.
MAIN-AUTH TRACE-TITL*AUTH* CATLG BY-LC
/ / PUBL In UNITED KINGDOM

82V36911 1982 ISS: HD31.S6968 1982 0-256-02752-6
(pbk.) 658.4012 LC-82-71136
AUTH: A/Strickland, Alonzo J.; B/Thompson, Arthur A.,
B/1940-
UTTL: Cases in strategic management / A.J. Strickland and
Arthur A. Thompson.
Business Publications, Plano, Tex. : xi, 395 p. : ill.
; 24 cm.
LC: Management -- Case studies. Industrial management
-- United States -- Case studies.
NASA: / INDUSTRIAL MANAGEMENT/ MANAGEMENT
MAIN-AUTH TRACE-TITL*AUTH* CATLG BY-LC
82/06/25 AVAIL: / NASA HQ.

80V32450 1980 ISS: 00 HD30.28.S89 0-316821-97-7
658.4012 LC-79-90888
AUTH: A/Summer, Charles Edgar.
UTTL: Strategic behavior in business and government /
Charles E. Summer.
Little, Brown, Boston : xiii, 378 p. ; 23 cm.
Little, Brown series in strategy and policy Includes
bibliographical references and indexes.
LC: Corporate planning. Planning.
MAIN-AUTH TRACE-SERS*TITL* CATLG BY-LC
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83V56408 1984 ISS: HF5411.S87 1984 0-471-90423-6
658.8 LC-83-25902
AUTH: A/Thomas, H. (Howard); B/Gardner, David Morgan,
B/1936-
UTTL: Strategic marketing and management / edited by Howard
Thomas and David Gardner.
American Marketing Association. Marketing Education
Division. University of Illinois at Urbana-Champaign.
Dept. of Business Administration.
Wiley, Chichester (West Sussex) ; New York : p. cm.
Papers presented at a conference co-sponsored by the
Marketing Education Division of the American Marketing
Association and the Dept. of Business Administration,
College of Commerce and Business Administration at the
University of Illinois at Urbana-Champaign, held May
10-11, 1982 at the university.
LC: Marketing -- Congresses. Marketing -- Management
-- Congresses.
MAIN-TITL TRACE-CORP*AUTH* CATLG BY-LC
83/11/28 PUBL In UNITED KINGDOM

84V60854 1984 ISS: HD30.28.T53 1984 O-256-03077-4
 658.4012 LC-83-72615
 AUTH: A/Thompson, Arthur A.; B/Strickland, Alonzo J.;
 C/Thompson, Arthur A., A/1940-; C/1940-
 UTTL: Strategic management : TLSP: concepts and cases /
 Arthur A. Thompson, Jr. and A. J. Strickland III.
 3rd ed. Business Publications, Plano, Tex. : xxi, 1034
 p. : ill. ; 25 cm.
 Rev. ed. of: Strategy and policy. 2nd ed. 1981.
 Includes bibliographies and indexes.
 LC: Corporate planning. Management.
 MAIN-AUTH TRACE-TITL*AUTH* CATLG BY-LC
 84/12/06

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 (pbk.) 658.4012 LC-84-70307
 AUTH: A/Thompson, Arthur A.; B/Strickland, Alonzo J.;
 C/Fulmer, William E. A/1940-
 UTTL: Readings in strategic management / (edited by) Arthur
 A. Thompson, Jr., A.J. Strickland III, William E.
 Fulmer.
 Business Publications, Plano, Tex. : xi, 398 p. : ill.
 ; 25 cm.
 Includes bibliographical references.
 LC: Corporate planning -- Addresses, essays, lectures.
 Management -- Addresses, essays, lectures.
 MAIN-TITL TRACE-AUTH* CATLG BY-LC
 84/10/19

83V56375 1984 ISS: HD62.6.U57 1984 O-03-068776-4
 (alk. paper) 658.048 LC-83-24641
 AUTH: A/Unterman, Israel.; B/Davis, Richard H. (Richard
 Hart), B/1942-
 UTTL: Strategic management for not-for-profit organizations
 / Israel Unterman and Richard H. Davis.
 Praeger, New York : xiii, 320 p. : ill. ; 24 cm.
 Includes index.
 LC: Corporations, Nonprofit -- Management.
 NASA: / INDUSTRIAL MANAGEMENT/ STRATEGY
 GD: / C 86-005352C.1/ HD62.6.U57 1984/ 8620068
 MAIN-AUTH TRACE-TITL*AUTH* CATLG BY-LC
 83/12/05 AVAIL: / GODDARD

84V16940 1984 ISS: HD30.28.W429 1984 O-201-09036-8
 658.4012 LC-84-418
 AUTH: A/Wheelen, Thomas L.; B/Hunger, J. David, B/1941-
 UTTL: Strategic management / Thomas L. Wheelen, J. David
 Hunger.
 Addison-Wesley, Reading, Mass. : xviii, 296 p. : ill.
 ; 24 cm.
 Includes index.
 LC: Corporate planning.
 MAIN-AUTH TRACE-TITL*AUTH* CATLG BY-LC
 84/02/07

82V43134 1983 ISS: HD30.28.W43 1983 O-201-09011-2
 658.4012 LC-82-13886
 AUTH: A/Wheelen, Thomas L.; B/Hunger, J. David, B/1941-
 UTTL: Strategic management and business policy / Thomas L.
 Wheelen, J. David Hunger.
 Addison-Wesley Pub. Co., Reading, Mass. : xxiv, 978 p.
 : ill. ; 24 cm.
 Includes bibliographical references and indexes.
 LC: Corporate planning. Management.
 MAIN-AUTH TRACE-TITL*AUTH* CATLG BY-LC
 82/08/02

84V35986 1985 ISS: HD62.4.W68 1985 O-471-80741-9
 (pbk.) 658.049 LC-84-15180
 AUTH: A/Wortzel, Heidi Vernon.; B/Wortzel, Lawrence H.
 UTTL: Strategic management of multinational corporations /
 Heidi Vernon Wortzel, Lawrence H. Wortzel.
 Wiley, New York : xi, 460 p. ; 24 cm.
 Wiley series in international business, 0277-271X
 Includes index.
 LC: International business enterprises -- Management.
 International business enterprises -- Planning.
 International economic relations. Competition.
 International.
 MAIN-AUTH TRACE-SERS*TITL*AUTH* CATLG BY-LC
 84/06/29

86V15181 1983 ISS: TS171.A5W8 OCM11126265
 AUTH: A/Wu, Anthony Bing.
 UTTL: Strategic design and decision support methodology for
 large-scale, advanced technological systems / by
 Anthony Bing Wu.
 Cullen College of Engineering. Dept. of Mechanical
 Engineering.
 University of Houston,) (Houston : xxviii, 288 leaves
 : ill. ; 29 cm.
 Degree granted by Dept. of Mechanical Engineering.
 Cullen College of Engineering. Thesis (Ph.
 D.)--University of Houston-University Park, 1983.
 Bibliography: leaves 278-288.
 LC: Industrial design. Industrial management.
 Large-scale, advanced technological systems. Systems
 engineering.
 NASA: / DECISION MAKING/ DECISIONS/ INDUSTRIAL
 MANAGEMENT/ INDUSTRIES/ SYSTEMS ENGINEERING
 JSC: / TS171.A5W8
 MAIN-AUTH TRACE-CORP*TITL* CATLG BY-OTHER
 84/09/06 AVAIL: / JOHNSON

73V37266 1973 ISS: OO U393.U54 355.OO72073 LC-73-86650
 UTTL: U.S. military R&D management.
 Georgetown University, Center for Strategic and
 International Studies, (Washington) viii, 77 p. 22 cm.
 Georgetown University, Washington, D.C. Center for
 Strategic and International Studies. Special report
 series, no. 14 Report by a panel organized by the
 Center for Strategic and International Studies.
 LC: Military research -- United States.
 ADDED: N*US***
 MAIN-TITL TRACE-SERS* CATLG BY-LC
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SECTION V
SOURCES OF LITERATURE

SECTION V
SOURCES OF LITERATURE

The following is a list of known sources from which to obtain the Literature cited in this document. Other sources may also be available.

Journal Articles

- (1) Data Courier, Inc. (ABI/INFORM)
620 South Fifth Street
Louisville, KY 40202
Tel. 800-626-2823
502-582-4111
- (2) Linda Hall Library
5109 Cherry Street
Kansas City, MO 64110
Tel. 816-363-4600
- (3) Dynamic Information
Attn: Manager Document Delivery
P. O. Box 8019
Redwood City, CA 94065-0919
Tel. 415-591-5900

Conference Papers

- (1) Engineering Information, Inc.
Document Delivery Service, Rm. 204
345 East 47th Street
New York, NY 10017
Tel. 800-221-1044
or 212-705-7301
- (2) Linda Hall Library
5109 Cherry Street
Kansas City, MO 64110
Tel. 816-363-4600

Government Reports

Customer Service Staff
National Technical Information Service
U.S. Department of Commerce
5285 Port Royal Road
Springfield, VA 22161
Tel. 703-487-4660

NASA reports are typically identified with "N": numbers, e.g., 87N26680;
DoD reports are identified with "AD" numbers, e.g., AD-A156766.

Books

Available from book dealers and/or publishers.